

THE RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

FISH BULLETIN 129

4138⁷⁰

THE CALIFORNIA MARINE FISH CATCH FOR 1963

BY THE BIOSTATISTICAL SECTION
MARINE RESOURCES OPERATIONS



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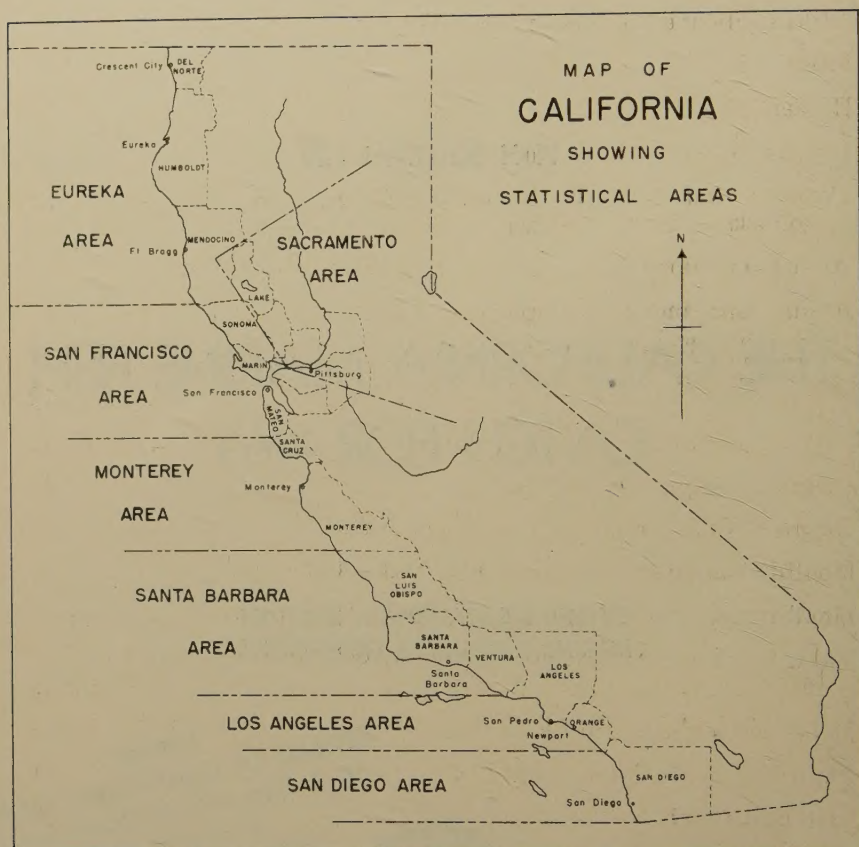


FIGURE 1

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FOREWORD

Catch bulletins provide records of California's commercial fisheries and their value to fishermen. They also summarize the marine partyboat angler's catch.

The report for 1963 is the 23rd in the series. Prior records have been published regularly beginning with those for 1926 and 1927. In recent years, catch bulletins have been published annually instead of biennially.

Records are obtained from each wholesale fish dealer or processor who receives fish from fishermen or who processes fish. Partyboat operators record each trip's catch, and these records are also sent to the Department. Clerical personnel in strategic locations (Eureka, San Francisco, Monterey, Terminal Island, and San Diego) maintain contact with fish dealers and local Fish and Game wardens to insure that the records are accurate and transmitted promptly. All data are edited and subsequently processed by electric accounting machines.

Landings of inshore bait have become of increasing interest and are included among this year's statistics. We are indebted to Sterling P. Davis for his initial work in this area and the continued enthusiasm of Ken Aasen, our field representative. Both have encouraged the cooperation of bait dealers and the Fish and Game wardens, enabling us to present the first figures to indicate the magnitude of the fishery.

Published figures are of national and international concern, but they are used primarily by fisheries scientists and state legislators to manage and regulate California's important fisheries. Chambers of commerce, members of the fishing industry, educators, and others also find these catch statistics of value.

EXPLANATION OF TABLES

The tables in this report summarize the recorded 1963 landings of the California commercial fishing fleet, the imports from other states or foreign countries of fresh fish received for processing, the catches of the partyboat fleet, and poundages of inshore bait handled during the year. Fish shipped into California that are utilized in a fresh state are not reported to the Department nor recorded in the tables.

SOURCE OF DATA

The sources of all commercial fish landing and import data are sales slips or receipts which are completed by fish dealers at the time of delivery and transmitted to the Department. Each dealer is required by law to include the following information on the receipt:

- 1) the weight of each species received
- 2) the price paid to the fisherman
- 3) the date
- 4) name of the fisherman
- 5) Department of Fish and Game registration number of boat
- 6) name of the dealer
- 7) an indication of the intended disposition of the fish (canned, fresh, etc).

In addition, area of catch and type of gear used by the vessel making the delivery are reported for most landings.

Receipts, prepared by each dealer, are sent to the Department twice each month. The documents are edited and the data punched into cards before being summarized with electric accounting machines.

Marine partyboat catch statistics are obtained from records of each fishing trip. The partyboat skipper is required by law to transmit the records each month.

STATISTICAL AREAS

California is divided into seven areas for the purpose of reporting fisheries statistics. Each statistical area is named for a major port within its boundaries. Figure 1 shows the boundaries of the seven areas. Department personnel are responsible for collecting and inventorying landing receipts in each statistical area.

SPECIES

The species of fish landed or shipped into California are listed in Table 2. Both common and scientific names are given. Some varieties are reported collectively when, for economic or other reasons, dealers do not report a specific separation.

One example of species grouping is the animal-food category which consists of a variety of fish caught by trawling. In an attempt to determine the species comprising animal food landings, a sampling pro-

gram has been conducted by biologists of the Department's Bottomfish Investigation. Based on their findings, the estimated weight each species contributed to the 1963 animal-food category is:

<i>Species</i>	<i>Percent</i>	<i>Pounds</i>
Sablefish -----	33.0	341,207
Pacific hake -----	25.3	261,592
Rockfish -----	20.7	214,030
English sole -----	12.4	128,211
Twenty-nine other species -----	8.6	88,921
	100.0	1,033,961

CONDITION

Most fish and shellfish landed in California are in a round condition; however, some species, such as salmon and swordfish, are eviscerated or cleaned before landing. The condition of fish landed and shipped into the State cannot always be determined; therefore, the weights summarized in the tables are as reported to the Department without regard to condition.

Starting with the 1963 records, the oyster poundage is published as packed gallon weight instead of live (in the shell) weight. Packed gallon weight is more meaningful to the oyster industry and researchers and will be used in future statistical publications. The packed gallon weight of Pacific oyster is estimated to be 15.5 percent of live weight landings; that for Eastern oysters is somewhat lower at 10.9 percent.

CONVERSIONS

Landings reported by units of measure other than pounds are equated to pounds by using appropriate conversion factors. Conversion factors are determined periodically by sampling landings at delivery points. The factors applied to six species of mollusks and crustaceans during 1963 were:

Abalone, red -----	50 pounds per dozen
Abalone, pink -----	25 pounds per dozen
Abalone, green -----	35 pounds per dozen
Clams, Mexican Pismo -----	8 pounds round weight per 1 pound cleaned weight
Clams, Washington -----	7 pounds per dozen
Crab, market -----	2 pounds each

VALUE

Value is computed from prices paid to the fishermen. Values, therefore, reflect the contribution of the fishermen to the total worth of the fisheries. When the price paid for an individual landing is not specified, the average price for the species in the area in which it was landed is used.

INSHORE BAIT FISHERY

Sport fishing is one of California's major recreational activities. More than 1.5 million fishermen purchase licenses, tackle, bait, food, and lodging each year. The number of licensees and an estimate of the amount of money expended for tackle, food, and lodging has been published, but little is known or published on bait taken from bays, rivers, and the intertidal zone.

In many locations, bait grounds are disappearing. Urbanization requires that we learn as much as possible concerning this minor commercial fishery which is of prime importance to the angler.

Early in 1962, we became interested in the feasibility of collecting inshore bait records. We were mostly interested in the type of fish, mollusk, or crustacean taken in this fishery, plus their volume and value.

The eight major species appearing in the fishery are:

Bay mussel, *Mytilus edulis*
 Freshwater clam, *Corbicula flumines*
 Ghost shrimp, *Callinassa californicus*
 Jackknife clam, *Tegulus californianus*
 Longjaw mudsucker, *Gillichthys mirabilis*
 Red shrimp, *Hippolytasmata californica*
 Rock mussel, *Mytilus californianus*
 Sand crab, *Emerita analoga*

These species are primarily taken south of Santa Barbara, but there is also a small fishery in the San Francisco, Sacramento-San Joaquin-Delta area. Most sales occur in southern California, except for freshwater clams which are used as catfish bait in central California.

Bait sales are recorded on our regular fish receipt. Receipt books are issued to dealers who purchase bait from commercial fishermen. In some instances, the commercial fisherman is issued a book—in either case, a receipt is completed for each sale (Figure 2).

Units of measure frequently used by the bait industry are trays, sacks, dozens and gallons. It was desirable to convert measuring units of four species into pounds for uniform reporting. Samples collected from bait dealers and weighed on a Welch beam balance were used to compute the following conversion factors:

Species	Reporting Unit	Conversion Factor Pounds per Unit	Comment
Mussel -----	Sack	80.0	Unshucked
	Shucked Pound	3.8	Unshucked
	Gallon	30.0	Unshucked
Mudsuckers -----	Tray	19.0	About 500 fish
	Dozen	.465	
Ghost Shrimp -----	Dozen	.046	
Sand Crab -----	Dozen	.041	Softshell
	Gallon	4.5	Hardshell

Records for the first complete year showed the fishery handled 361,000 pounds worth approximately \$122,000 to the fishermen. Freshwater clams were the least valuable per pound, and ghost shrimp the most valuable.

The Los Angeles area bait fishery led all other areas with an \$80,395 value and 144,818 pounds. Details of this fishery are recorded in Table 1. The magnitude of inshore bait will be recorded annually in future bulletins.

THIS COPY FOR FISHERMAN

CALIFORNIA DEPARTMENT OF FISH AND GAME

NAME OF DEALER Ted's Rancho Bait & Tackle 7388-729 Malibu
 PORT WHERE FISH FIRST LANDED Newport
 DATE 11-4 1964 GEAR Hand + Net
 BOAT NAME None F & G BOAT NO. —

FISHERMAN John Doe

(OR DEALER FROM WHOM FISH PURCHASED)

WHERE WERE FISH CAUGHT?
GIVE BLOCK NO. Newport Bay 738

VARIETY	WEIGHT	PRICE	AMOUNT
<u>Ghost shrimp</u>	<u>15 doz.</u>	<u>.20¢</u>	<u>\$3.00</u>
<u>Sand Crab</u>	<u>20 doz.</u>	<u>.25¢</u>	<u>\$5.00</u>
<u>Mussel</u>	<u>1 sack</u>	<u>\$4.00</u>	<u>\$4.00</u>
<u>Sample</u>			

TO BE USED FOR BaitNo. N 487172 Rec'd By Ted Smith

FG 620

(P e)

FIGURE 2. An example of a completed receipt from a bait dealer.

TABLE 1
Inshore Bait Landings
Pounds and Value
1963

Species	Sacramento	San Francisco	Los Angeles	San Diego	Statewide
Mudsuckers.....	---	---	---	---	9,861 \$9,534
Freshwater clams.....	151,624 \$11,660	254 \$38	---	---	151,878 \$11,698
Mussels (bay and rock).....	---	---	85,260 \$7,032	19,858 \$1,782	105,818 \$8,814
Jackknife clams.....	---	---	40,657 \$20,776	32,403 \$15,297	73,060 \$36,073
Ghost shrimp.....	---	---	7,737 \$33,126	453 \$2,924	8,190 \$36,050
Sand crabs.....	---	---	4,673 \$11,919	---	4,673 \$11,919
Red shrimp.....	---	---	4,056 \$6,382	---	4,056 \$6,382
Miscellaneous.....	---	130 \$22	2,435 \$1,160	1,499 \$712	4,064 \$1,894
Totals.....	151,624 \$11,660	384 \$60	144,818 \$80,395	54,213 \$20,715	360,900 \$122,364

TABLE 2

Common and Scientific Names of Fishes, Crustaceans, and Mollusks in the 1963 Catch

Common name	Scientific name	Common name	Scientific name
FISHES			
Anchovy.....	<i>Engraulis mordax</i>	Shark	
Barracuda.....	<i>Sphyraena argentea</i>	Brown Smooth-	
Blacksmith.....	<i>Chromis punctipinnis</i>	hound.....	<i>Triakis heniei</i>
Bonito, Pacific.....	<i>Sarda chiliensis</i>	Leopard.....	<i>Triakis semifasciata</i>
Cabezon.....	<i>Scorpaenichthys marmoratus</i>	Pacific angel.....	<i>Squatina californica</i>
Cabrilla, spotted.....	<i>Epinephelus analogus</i>	Soupin.....	<i>Galeorhinus zyopterus</i>
Carp.....	<i>Cyprinus carpio</i>	Spiny dogfish.....	<i>Squalus acanthias</i>
Croaker, white.....	<i>Genyonemus lineatus</i>	Thresher.....	<i>Alopias vulpinus</i>
Small amounts of		Small amounts of	
queenfish.....	<i>Seriophus politus</i>	others	
Flounder		Sheephead, California.....	<i>Pimelometopon pulchrum</i>
Starry flounder.....	<i>Platichthys stellatus</i>	Skate	
Small amounts of		Big.....	<i>Raja binoculata</i>
other flatfishes		California.....	<i>Raja inornata</i>
Flounder, arrowtooth.....	<i>Atheresthes stomias</i>	Longnose.....	<i>Raja rhina</i>
Flyingfish.....	<i>Cypselurus</i> spp.	Small amounts of	
Grouper.....	<i>Mycteroperca</i> spp.	others.....	<i>Rajiformes</i>
Hake, Pacific.....	<i>Merluccius productus</i>	Smelt	
Halfmoon.....	<i>Medialuna californiensis</i>	Grunion.....	<i>Leuresthes tenuis</i>
Halibut, California.....	<i>Paralichthys californicus</i>	Jacksmelt.....	<i>Atherinopsis californiensis</i>
Halibut, Pacific.....	<i>Hippoglossus stenolepis</i>	Surf.....	<i>Hypomesus pretiosus</i>
Hardhead		Topsmelt.....	<i>Atherinops affinis</i>
Sacramento black-		Smelt, whitebait.....	<i>Allosmerus elongatus</i>
fish.....	<i>Orthodon microlepidotus</i>		<i>Spirinchus starksi</i>
Hardhead.....	<i>Mylopharodon conocephalus</i>	Young of several others	
Herring, Pacific.....	<i>Clupea pallasii</i>	Sole	
Lingcod.....	<i>Ophiodon elongatus</i>	Dover.....	<i>Microstomus pacificus</i>
Mackerel, jack.....	<i>Trachurus symmetricus</i>	English.....	<i>Parophrys vetulus</i>
Mackerel, Pacific.....	<i>Scomber diego</i>	Petrals.....	<i>Eopsetta jordani</i>
Opaleye.....	<i>Girella nigricans</i>	Rex.....	<i>Glyptocephalus zachirus</i>
Perch.....	Members of family Embiotocidae	Sand.....	<i>Psettichthys melanostictus</i>
Pompano, Pacific.....	<i>Palometa similima</i>	Small amounts of	
Rockfish.....	All species of <i>Sebastes</i> and <i>Sebas-</i>	others	
	<i>tolobus</i>	Splittail.....	<i>Pogonichthys macrolepidotus</i>
Sablefish.....	<i>Anoplopoma fimbria</i>	Sturgeon.....	<i>Acipenser</i> spp.
Salmon		Sucker.....	<i>Catostomus</i> spp.
King.....	<i>Oncorhynchus tshawytscha</i>	Swordfish.....	<i>Xiphias gladius</i>
Silver.....	<i>Oncorhynchus kisutch</i>	Tuna	
Sanddab.....	<i>Citharichthys sordidus</i>	Albacore.....	<i>Thunnus alalunga</i>
Sardine.....	<i>Sardinops caeruleus</i>	Bigeye.....	<i>Thunnus obesus</i>
Sculpin.....	<i>Scorpaena guttata</i>	Bluefin.....	<i>Thunnus thynnus</i>
Sea bass, giant.....	<i>Stereolepis gigas</i>	Skipjack.....	<i>Katsuwonus pelamis</i>
Seabass, white.....	<i>Cynoscion nobilis</i>	Yellowfin.....	<i>Thunnus albacares</i>
Shad.....	<i>Alosa sapidissima</i>	Turbot	
		Curlfin.....	<i>Pleuronichthys decurrens</i>
		Diamond.....	<i>Hypsopsetta guttulata</i>
		Hornyhead.....	<i>Pleuronichthys verticalis</i>
		Small amounts of	
		others	
		Wahoo.....	<i>Acanthocybium solanderi</i>
		Whitefish, ocean.....	<i>Caulolatilus princeps</i>
		Yellowtail, California.....	<i>Seriola dorsalis</i>
CRUSTACEANS			
Crab, market.....	<i>Cancer magister</i>	Prawn.....	<i>Pandalus platyceros</i>
Crab, rock.....	<i>Cancer productus</i>	Shrimp, bay.....	<i>Crango franciscorum</i>
	<i>Cancer antennarius</i>		<i>Crango nigricauda</i>
	<i>Cancer anthonyi</i>	Shrimp, ocean.....	<i>Pandalus jordani</i>
Lobster, spiny.....	<i>Panulirus interruptus</i>	Small amounts of	
		others	
MOLLUSKS			
Abalone		Octopus.....	<i>Octopus</i> spp.
Pink.....	<i>Haliotis corrugata</i>	Oyster	
Red.....	<i>Haliotis rufescens</i>	Eastern.....	<i>Crassostrea virginica</i>
Green.....	<i>Haliotis fulgens</i>	Giant Pacific.....	<i>Crassostrea gigas</i>
White.....	<i>Haliotis sorenseni</i>	Squid.....	<i>Loligo opalescens</i>
Clam, Washington.....	<i>Saxidomus nuttalli</i>		

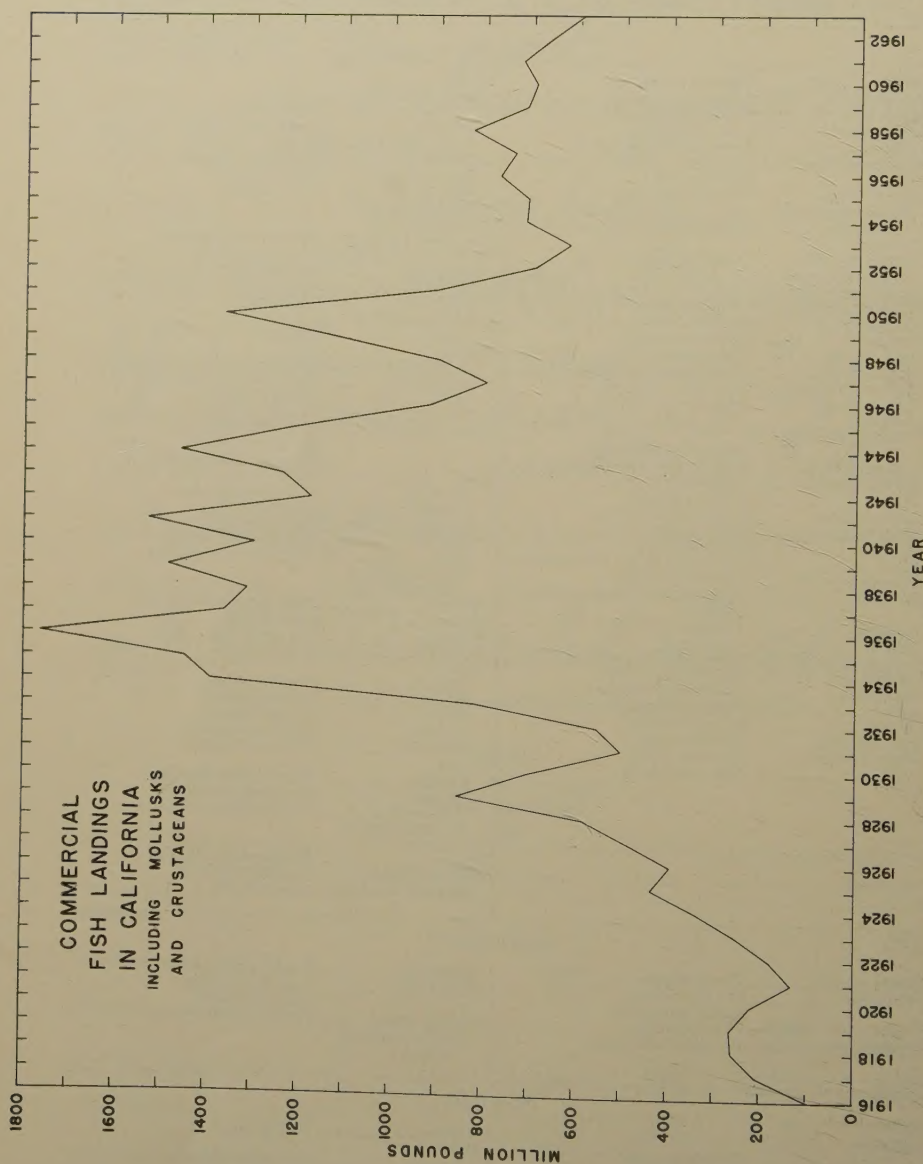


FIGURE 3. Total annual landings and shipments into California. Includes sardine deliveries to reduction ships, 1930-38 (see Table 3).

TABLE 3

Total Annual Landings and Shipments Into California of Commercial Fish, Mollusks, and Crustaceans, Includes Sardine Deliveries to Reduction Ships During 1930 Through 1938

Year	Thousands of pounds	Year	Thousands of pounds
1916.....	95,003	1941.....	1,529,148
1917.....	209,877	1942.....	1,173,414
1918.....	261,134	1943.....	1,234,049
1919.....	266,270	1944.....	1,459,446
1920.....	222,004	1945.....	1,216,467
1921.....	135,348	1946.....	919,850
1922.....	182,343	1947.....	795,499
1923.....	253,875	1948.....	900,540
1924.....	340,446	1949.....	1,135,325
1925.....	437,502	1950.....	1,366,596
1926.....	394,964	1951.....	904,088
1927.....	487,166	1952.....	694,977
1928.....	583,527	1953.....	618,899
1929.....	856,854	1954.....	713,406
1930.....	702,189	1955.....	710,714
1931.....	502,390	1956.....	772,549
1932.....	556,139	1957.....	738,550
1933.....	821,805	1958.....	832,919
1934.....	1,390,799	1959.....	713,491
1935.....	1,448,017	1960.....	694,663
1936.....	1,764,900	1961.....	725,253
1937.....	1,362,984	1962.....	663,107
1938.....	1,310,596	1963.....	592,899
1939.....	1,486,535		
1940.....	1,297,517		

TABLE 4

Landings and Shipments of Leading Species Ranked by Pounds

1962				1963			
Species	Rank	Thousands of pounds	Thousands of dollars	Species	Rank	Thousands of pounds	Thousands of dollars
Yellowfin tuna.....	1	218,149	36,478	Yellowfin tuna.....	1	162,326	23,461
Skipjack.....	2	99,059	12,742	Skipjack.....	2	106,285	11,411
Jack mackerel.....	3	89,979	1,869	Jack mackerel.....	3	95,442	1,989
Albacore.....	4	73,354	13,261	Albacore.....	4	65,805	10,710
Pacific mackerel.....	5	48,579	1,027	Pacific mackerel.....	5	40,243	861
Bluefin tuna.....	6	32,916	4,638	Bluefin tuna.....	6	32,702	3,724
Sardine.....	7	15,363	490	Rockfish.....	7	11,761	683
Giant Pacific oyster.....	8	11,044	302	Squid.....	8	11,561	240
Rockfish.....	9	9,834	574	Dover sole.....	9	9,782	599
Squid.....	10	9,368	168	Salmon.....	10	8,035	4,110
Dover sole.....	11	8,581	517	Sardine.....	11	7,131	299
Salmon.....	12	6,884	4,195	Anchovy.....	12	4,570	78
English sole.....	13	4,206	303	Abalone.....	13	4,354	627
Abalone.....	14	4,183	593	English sole.....	14	4,254	329
Market crab.....	15	3,223	872	Pacific bonito.....	15	4,022	113
Petrale sole.....	16	3,041	362	Petrale sole.....	16	3,318	400
Anchovy.....	17	2,764	50	Ocean shrimp.....	17	2,093	202
Pacific bonito.....	18	2,150	63	Sablefish.....	18	1,998	136
Sablefish.....	19	2,150	140	Market crab.....	19	1,951	688
Miscellaneous (animal food).....	20	1,880	37	Rex sole.....	20	1,566	108
All others.....	--	16,400	2,242	All others.....	--	13,700	2,050
Totals.....	--	663,107	80,923	Totals.....	--	592,899	62,818

TABLE 5
Number of Licensed Commercial Fishermen

Area of residence	License year*	
	1962-63	1963-64
Eureka.....	1,211	1,195
Sacramento.....	151	190
San Francisco.....	1,198	1,284
Monterey.....	651	684
Santa Barbara.....	706	659
Los Angeles.....	2,332	2,163
San Diego.....	1,800	1,736
Alaska, Washington and Oregon fishermen licensed in California.....	465	523
Mexican nationals licensed in California.....	70	64
Other.....	16	46
Totals.....	8,600	8,544

* April 1 to March 31.

TABLE 6
Number of Registered Fishing Boats by Length

License year*	Up to 24 feet	25 to 39 feet	40 to 64 feet	65 to 84 feet	85 to 99 feet	100 feet and over	Total
1962-1963.....	845	1,729	1,032	108	37	103	3,854†
1963-1964.....	852	1,698	1,050	109	37	96	3,842‡

* April 1 to March 31.

† The owners of 523 boats were issued fishing party licenses in 1962-63.

‡ The owners of 523 boats were issued fishing party licenses in 1963-64.

TABLE 7
Origin of Shipments of Fresh Fish Into California During 1963

Shipped from: Species	Pounds shipped to each area			Total Pounds
	San Francisco	Los Angeles	San Diego	
Continental United States:				
Shad.....	2,765	-----	-----	2,765
Miscellaneous.....	120,340	152,835	-----	273,175
Oregon, Washington, Canada and Alaska:				
Sablefish.....	-----	96,309	-----	96,309
Salmon.....	-----	175,728	-----	175,728
Sturgeon.....	-----	1,063	-----	1,063
Tuna, albacore.....	-----	-----	65,627	65,627
Miscellaneous.....	-----	70,959	-----	70,959
Mexico and Central America:				
Halibut, California.....	-----	8,357	103	8,460
Rockfish.....	-----	11,146	-----	11,146
Shark.....	-----	2,488	-----	2,488
Tuna, albacore.....	-----	64,816	-----	64,816
Tuna, bluefin.....	-----	843,831	-----	843,831
Tuna, skipjack.....	-----	1,475,371	-----	1,475,371
Tuna, yellowfin.....	-----	1,640,119	-----	1,640,119
Miscellaneous.....	-----	584	-----	584
South America:				
Tuna, skipjack.....	-----	4,723,727	3,247,961	7,971,688
Tuna, yellowfin.....	-----	3,586,782	1,994,812	5,581,594
Japan:				
Sablefish.....	-----	92,250	-----	92,250
Tuna, albacore.....	1,103,669	14,079,173	-----	15,182,842
Tuna, bigeye.....	40,480	-----	-----	40,480
Tuna, skipjack.....	217,830	-----	-----	217,830
Tuna, yellowfin.....	12,872,152	27,638,455	-----	40,510,607
Australia:				
Tuna, bluefin.....	51,990	1,452,571	-----	1,504,561
Tuna, yellowfin.....	4,500	-----	-----	4,500
China (Formosa):				
Tuna, albacore.....	50,842	6,185	-----	57,027
Tuna, bigeye.....	54,841	-----	-----	54,841
Tuna, yellowfin.....	783,717	373,445	-----	1,157,162
Malaya:				
Tuna, albacore.....	417,745	1,154,793	-----	1,572,538
Tuna, bigeye.....	578,989	59,675	-----	638,664
Tuna, yellowfin.....	2,177,819	1,586,303	-----	3,764,122
Java:				
Tuna, albacore.....	-----	2,375	-----	2,375
Tuna, yellowfin.....	-----	84,952	-----	84,952
Africa:				
Abalone.....	-----	10,000	-----	10,000
Total pounds.....	18,477,679	59,394,292	5,308,503	83,180,474

TABLE 8

Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

Species	Landings of catches from				Shipments*	Grand total
	California waters	Waters north of State	Water south of State	Total pounds		
Fish:						
Anchovy.....	4,570,380	----	----	4,570,380	----	4,570,380
Barracuda, California.....	347,354	----	31,360	378,714	----	378,714
Blacksmith.....	2,900	----	----	2,900	----	2,900
Bonito, Pacific.....	4,013,505	----	9,017	4,022,522	----	4,022,522
Cabezon.....	2,811	----	----	2,811	----	2,811
Cabrilla, spotted.....	----	----	37,088	37,088	----	37,088
Carp.....	255,091	----	----	255,091	----	255,091
Croaker, white.....	550,653	----	406	551,059	----	551,059
Flounder.....	518,961	2,349	----	521,310	----	521,310
Flounder, arrowtooth.....	17,345	----	----	17,345	----	17,345
Flyingfish.....	46,613	----	----	46,613	----	46,613
Grouper.....	----	----	233,482	233,482	----	233,482
Hake, Pacific.....	139,699	----	----	139,699	----	139,699
Halibut.....	8,683	----	----	8,683	----	8,683
Halibut, California.....	855,092	----	265,277	1,120,369	8,460	1,128,829
Halibut, Pacific.....	4,508	----	----	4,508	----	4,508
Hardhead.....	148,242	----	----	148,242	----	148,242
Herring, Pacific.....	630,087	----	----	630,087	----	630,087
Lingcod.....	1,047,923	84,594	491	1,133,008	----	1,133,008
Mackerel, jack.....	95,442,284	----	----	95,442,284	----	95,442,284
Mackerel, Pacific.....	40,241,832	----	844	40,242,676	----	40,242,676
Opaleye.....	4,378	----	----	4,378	----	4,378
Perch.....	171,666	----	1,218	172,884	----	172,884
Pompano, Pacific.....	58,156	----	----	58,156	----	58,156
Rockfish.....	11,095,802	438,514	215,144	11,749,460	11,146	11,760,606
Sablefish.....	1,701,780	107,569	----	1,809,349	188,559	1,997,908
Salmon.....	7,859,035	151	----	7,859,186	175,728	8,034,914
Sanddab.....	554,425	1,358	----	555,783	----	555,783
Sardine.....	7,131,221	----	----	7,131,221	----	7,131,221
Sculpin.....	75,209	----	312	75,521	----	75,521
Sea bass, giant.....	13,960	----	289,619	303,579	----	303,579
Seabass, White.....	372,479	----	518,741	891,220	----	891,220
Shad.....	----	----	----	----	2,765	2,765
Shark.....	605,252	----	60,115	665,367	2,488	667,855
Sheephead, California.....	25,210	----	2,801	28,011	----	28,011
Skate.....	216,811	----	14	216,825	----	216,825
Smelt.....	358,456	----	----	358,456	----	358,456
Smelt, whitebait.....	148,080	----	----	148,080	----	148,080
Sole, Dover.....	8,392,044	1,389,688	----	9,781,732	----	9,781,732
Sole, English.....	4,175,651	78,894	----	4,254,545	----	4,254,545
Sole, petrale.....	2,934,924	383,024	----	3,317,948	----	3,317,948
Sole, rex.....	1,535,794	29,878	----	1,565,672	----	1,565,672
Sole, sand.....	331,088	120	----	331,208	----	331,208
Sole, miscellaneous.....	43,415	----	----	43,415	----	43,415
Splittail.....	5,383	----	----	5,383	----	5,383
Sturgeon.....	----	----	----	----	1,063	1,063
Sucker.....	5,947	----	----	5,947	----	5,947
Swordfish.....	95,672	----	2,402	98,074	----	98,074
Tuna, albacore.....	41,925,739	----	6,933,839	48,859,578	16,945,225	65,804,803
Tuna, bigeye.....	----	----	----	----	733,985	733,985
Tuna, bluefin.....	7,130,960	----	23,222,449	30,353,409	2,348,392	32,701,801
Tuna, skipjack.....	2,224,116	----	94,395,828	96,619,944	9,664,889	106,284,833
Tuna, yellowfin.....	60,220	----	109,522,946	109,583,166	52,743,056	162,326,222
Turbot.....	96,819	----	----	96,819	----	96,819
Wahoo.....	----	----	21,900	21,900	----	21,900
Whitefish, ocean.....	996	----	2,258	3,254	----	3,254
Yellowtail, California.....	25,443	----	44,283	69,726	----	69,726
Miscellaneous.....	3,380	----	876	4,256	344,718	348,974
Miscellaneous (animal food).....	1,014,634	19,327	----	1,033,961	----	1,033,961

TABLE 8—Continued

Origin of Commercial Fish Landings and Volume of Shipments Into California During 1963

Species	Landing of catches from				Shipments*	Grand total
	California waters	Waters north of State	Water south of State	Total pounds		
Crustacean:						
Crab, market.....	1,951,461	----	----	1,951,461	----	1,951,461
Crab, rock.....	240,611	----	----	240,611	----	240,611
Lobster, spiny.....	584,192	----	----	584,192	----	584,192
Prawn.....	8,445	----	----	8,445	----	8,445
Shrimp, bay.....	1,225	----	----	1,225	----	1,225
Shrimp, ocean.....	2,093,063	----	----	2,093,063	----	2,093,063
Mollusk:						
Abalone.....	4,343,879	----	----	4,343,879	10,000	4,353,879
Clam, Washington.....	3,879	----	----	3,879	----	3,879
Octopus.....	74,614	----	----	74,614	----	74,614
Oyster, eastern.....	13,502	----	----	13,502	----	13,502
Oyster, giant Pacific.....	1,255,515	----	----	1,255,515	----	1,255,515
Squid.....	11,560,854	----	----	11,560,854	----	11,560,854
Miscellaneous mollusk.....	869	----	----	869	----	869
Total pounds.....	271,370,217	2,535,466	235,812,710	509,718,393	83,180,474	592,898,867

* For origin of shipments refer to Table 7.

TABLE 9
Monthly Landings and Shipments Into California During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS:													
Fish:													
Anchorovy.....	997,045	594,450	95,485	91,778	450,465	190,459	208,877	138,872	130,950	803,250	289,591	609,208	4,570,380
Barracuda, California.....	30,299	9,579	28,283	41,645	54,089	105,188	32,793	10,851	4,992	21,864	17,529	21,602	378,714
Blacksmith.....	---	---	---	---	---	---	2,000	---	---	---	---	---	2,900
Bonito, Pacific.....	1,349,380	826,991	648,767	2,665	4,821	63,663	43,113	25,607	164,246	332,729	317,053	143,337	4,022,522
Cabezon.....	84	10	74	185	208	194	564	193	116	143	284	746	2,811
Cabrilla, spotted.....	---	27,924	---	84	2,085	---	1,087	660	11,055	---	1,922	3,326	37,088
Carp.....	39,693	67,180	21,613	18,147	15,945	13,980	9,750	7,418	15,290	15,290	16,000	18,350	255,091
Craker, white.....	31,193	98,387	68,574	86,698	40,041	32,340	23,044	13,903	23,738	55,646	15,314	59,272	551,059
Flounder.....	72,502	112,088	37,894	52,312	26,645	10,111	24,868	78,928	22,866	28,603	7,931	46,462	521,310
Flounder, arrowtooth.....	549	704	1,162	4,668	2,761	2,903	940	1,639	1,776	110	---	130	17,345
Flyingfish.....	---	---	---	---	9,807	13,712	16,900	3,770	2,321	103	---	---	46,613
Grouper.....	36,940	54,672	25,574	200	14,230	---	11,909	11,055	7,485	7,485	7,131	64,286	233,482
Hake, Pacific.....	260	---	---	7,600	34,450	25,385	34,454	27,300	7,990	1,610	640	---	139,699
Hallibut.....	---	10	---	82	---	---	---	---	---	1,974	1,012	5,605	8,663
Hallibut, California.....	135,852	180,854	106,223	76,044	71,294	67,369	98,026	92,112	59,740	97,123	34,538	98,194	1,120,369
Hallibut, Pacific.....	---	---	---	---	---	---	1,123	2,737	648	---	---	---	4,508
Hardhead.....	9,270	51,685	17,235	15,160	5,955	6,590	---	---	---	3,065	16,000	19,450	148,242
Herring, Pacific.....	333,064	47,993	3,290	39,976	178,189	20,794	5,210	---	---	---	500	1,071	630,067
Lingcod.....	98,248	48,823	42,973	120,116	113,862	147,916	179,937	---	148,835	72,075	32,279	65,540	1,133,008
Mackerel, jack.....	13,249,544	6,163,818	4,015,135	6,241,270	6,267,167	5,819,462	2,837,233	10,600,923	10,163,138	17,261,974	10,455,779	2,366,841	95,442,284
Mackerel, Pacific.....	1,440,405	1,890,467	2,249,890	2,640,075	6,663,954	1,756,900	1,416,431	4,684,155	2,270,696	8,588,579	3,238,252	3,397,782	40,242,676
Opaleye.....	12	---	12	---	286	130	156	150	255	976	386	2,015	4,378
Perch.....	26,646	11,506	31,342	37,751	1,233	360	13,404	20,582	11,612	7,736	1,704	9,008	172,884
Pompano, Pacific.....	---	13,188	2,252	2,214	4,400	6,530	10,855	8,037	3,498	4,933	1,045	1,115	58,156
Rockfish.....	1,069,333	1,049,818	826,957	1,023,454	1,011,848	825,551	909,799	1,260,646	1,113,941	872,549	875,032	910,502	11,749,460
Sablefish.....	181,502	111,819	193,680	165,303	159,684	154,266	140,532	204,038	150,350	73,894	118,521	150,800	1,809,349
Salmon.....	---	591,628	---	591,628	1,804,251	1,591,453	2,200,068	1,238,791	433,076	19	---	---	7,880,186
Sandbar.....	53,677	40,715	55,132	57,313	72,112	40,105	51,034	59,478	34,058	14,479	19,298	19,298	555,732
Sardine.....	403,455	519,029	484,700	775,336	780,890	432,474	362,879	1,112,712	588,970	393,219	370,305	317,252	7,151,291
Sculpin.....	2,519	987	1,336	6,040	6,191	3,373	18,611	18,936	2,823	8,314	2,513	3,985	75,921

Sea bass, giant.....	23,891	30,675	22,744	7,442	9,085	10,359	41,905	42,784	41,481	44,198	2,166	26,849	303,579
Seabass, white.....	48,808	80,475	21,181	58,966	98,891	60,909	55,898	111,018	119,746	113,453	68,463	50,412	891,220
Shark.....	57,194	34,280	41,618	27,779	72,892	101,622	53,184	63,587	42,427	74,224	55,300	41,116	665,307
Sheephead, California.....	2,516	1,345	528	1,071	1,646	742	1,329	761	480	7,330	5,543	4,720	28,011
Skate.....	24,317	25,048	32,185	26,616	14,149	12,493	14,898	13,363	10,976	16,742	10,665	15,373	216,825
Smelt.....	4,282	11,812	7,650	85,731	64,204	59,931	44,344	22,270	31,671	13,427	7,518	5,606	358,456
Smelt, whitebait.....	4,715	14,018	23,531	17,768	41,032	21,477	17,466	5,625	1,518	626,054	676,010	666,236	138,080
Sole, Dover.....	288,281	305,247	540,309	826,052	831,338	1,256,617	1,265,989	1,351,066	1,091,423	636,054	676,010	666,236	9,781,732
Sole, English.....	687,791	294,205	316,805	341,938	350,078	240,641	311,258	408,917	432,976	179,364	319,865	4,254,545	4,254,545
Sole, petrale.....	391,680	159,862	176,341	199,197	279,449	236,279	288,944	407,052	301,546	166,514	189,663	421,421	3,317,948
Sole, rex.....	203,326	100,735	95,492	131,877	116,210	86,880	116,938	128,049	182,986	106,995	112,712	183,492	1,585,672
Sole, sand.....	65,311	74,208	27,779	19,239	9,946	26,572	21,528	10,440	10,905	25,852	3,195	3,312	331,208
Sole, miscellaneous.....	1,247	7,390	5,710	1,550	3,666	5,792	3,275	4,923	3,015	2,597	1,077	3,173	43,415
Spittail.....	4,487	331	80	165	300	30	---	---	---	---	---	---	5,383
Sucker.....	2,930	2,960	25	---	---	---	---	---	---	32	---	---	5,947
Swordfish.....	269	---	---	---	---	11,188	30,112	35,487	5,205	15,813	---	---	98,074
Tuna, albacore.....	10,962	344	---	---	---	---	2,631,520	10,923,910	22,078,869	11,963,552	1,905,491	34,891	48,850,578
Tuna, bluefin.....	96,551	57,225	---	---	---	304,602	3,918,745	10,092,836	9,905,140	5,370,762	285,000	137,890	30,353,409
Tuna, skipjack.....	5,850,534	7,487,321	5,157,438	8,527,735	7,955,062	3,372,989	10,466,504	11,722,460	7,549,516	11,077,012	7,693,907	9,489,493	99,619,944
Tuna, yellowfin.....	9,475,268	11,628,710	13,877,752	15,817,386	10,905,897	3,906,363	14,122,724	11,161,254	4,329,857	2,804,587	2,453,250	3,110,988	109,583,166
Turbot.....	15,108	10,404	---	7,080	4,760	2,227	3,227	5,124	5,024	5,765	2,135	9,082	96,819
Wahoo.....	942	---	---	---	---	192	---	---	---	18,727	328	211	21,900
Whitefish, ocean.....	427	11	---	---	118	---	58	150	---	475	208	1,807	3,254
Yellowtail, California.....	9,987	6,382	2,121	1,512	4,969	14,352	4,969	8,068	4,507	3,760	2,579	5,928	68,726
Miscellaneous.....	164	766	237	299	465	414	326	147	287	699	78	344	4,256
Miscellaneous (animal food).....	106,613	67,132	105,613	151,034	101,736	50,603	82,227	54,561	87,504	63,545	40,772	119,621	1,033,961
Crustacean:	---	---	---	---	---	---	---	---	---	---	---	---	---
Crab, market.....	411,985	136,762	60,061	84,302	68,927	18,044	481	20	13,416	10,073	723,424	447,465	1,951,461
Crab, rock.....	22,183	17,208	20,385	27,312	26,807	22,585	29,404	20,760	---	---	13,986	16,492	240,611
Lobster, spiny.....	64,421	41,243	25,044	---	---	---	---	1,953	229	217,250	134,598	101,036	581,192
Prawn.....	---	---	769	362	---	---	---	---	---	248	512	4,372	8,445
Shrimp, bay.....	---	---	---	---	---	---	---	---	---	---	---	---	1,225
Shrimp, ocean.....	---	---	---	---	365,893	419,217	456,330	567,864	208,995	76,764	---	---	2,093,063
Mollusk:	---	---	---	---	---	---	---	---	---	---	---	---	---
Abalone.....	322,856	---	207,206	427,913	565,887	408,388	499,632	526,204	358,879	325,575	314,519	386,820	4,343,879
Clam, Washington.....	766	565	1,300	1,147	6,842	2,988	3,822	5,508	5,716	3,005	6,888	59	3,879
Octopus.....	5,589	8,633	5,802	5,660	807	727	892	727	1,823	1,093	1,969	14,161	74,614
Oyster, Eastern.....	1,462	1,232	1,104	909	807	897	727	873	1,823	1,093	1,969	1,969	13,802
Oyster, Pacific.....	118,372	116,760	133,352	95,587	83,356	47,208	42,372	38,949	76,387	173,464	171,321	155,407	1,255,515
Scallop, giant Pacific.....	2,101,450	1,586,371	409,555	1,070,830	2,263,195	1,518,101	983,043	437,580	308,046	60,290	60,290	818,860	11,560,851
Squid.....	232	71	98	68	85	78	55	---	8	---	58	116	869
Miscellaneous mollusk.....	---	---	---	---	---	---	---	---	---	---	---	---	---
Total pounds.....	39,846,623	34,377,408	30,345,557	40,034,452	42,385,551	23,521,721	43,967,850	67,483,310	62,946,671	62,921,060	30,929,783	30,955,407	509,718,393

TABLE 9—Continued
Monthly Landings and Shipments Into California During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
SHIPMENTS*													
Fish:													
Halibut, California	---	---	---	---	---	351	585	583	647	2,070	2,197	2,027	8,460
Rockfish	---	---	---	---	---	---	3,789	4,407	481	2,174	295	---	11,146
Sablefish	34,884	---	---	9,092	10,380	---	13,130	---	3,353	104,985	12,735	---	188,559
Salmon	321	61,977	14,647	6,292	---	5,439	---	580	35,282	51,190	---	---	175,728
Shad	---	---	---	---	---	---	---	---	---	2,765	---	---	2,765
Shark	---	---	---	---	---	178	792	980	82	223	50	203	2,488
Sturgeon	1,063	1,230,117	3,313,195	1,552,575	251,241	261,200	98,435	411,235	1,014,300	2,890,943	1,043,110	2,607,922	10,683
Tuna, albacore	2,261,952	---	---	136,466	---	---	10,015	---	---	74,465	---	---	16,945,225
Tuna, bigeye	121,824	---	172,772	943,122	67,469	441,980	508,145	108,549	260,913	18,214	12,591	203,832	733,085
Tuna, bluefin	---	---	---	---	---	---	---	---	---	---	---	---	2,348,392
Tuna, skipjack	882,530	---	1,959,808	121,256	---	1,084,617	28,621	2,427,801	2,718,669	441,587	---	---	9,664,889
Tuna, yellowfin	6,746,026	6,548,425	9,746,457	4,383,600	3,478,905	3,266,859	1,075,135	2,760,563	2,982,195	5,273,704	1,824,460	4,655,727	52,743,096
Miscellaneous	---	44,905	8,000	11,000	15,390	23,940	20,120	75,137	41,180	104,773	34	239	344,718
Mollusk:													
Abalone	---	---	10,000	---	---	---	---	---	---	---	---	---	10,000
Total pounds	10,048,600	7,885,424	15,224,879	7,163,403	3,823,385	5,084,564	1,758,767	5,789,815	7,057,102	8,976,093	2,895,472	7,472,970	88,180,474
Grand total	49,895,223	42,262,832	45,570,436	47,197,855	46,209,936	28,606,295	45,726,617	73,273,125	70,006,773	71,897,153	33,825,255	38,428,377	592,898,867

* For origin of shipments refer to Table 7.

TABLE 10
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Flounder	11,368	2,087	11,830	26,312	13,274	3,363	14,363	69,933	10,957	5,054	199	3,777	172,577
Flounder, arrowtooth	549	629	952	4,578	2,489	1,573	335	674	1,426	110	---	130	13,445
Hallibut, California	92	71	68	31	29	51	---	---	---	23	---	---	13,365
Hallibut, Pacific	---	---	---	---	---	---	1,123	2,737	648	---	---	---	4,508
Herring, Pacific	---	4,495	---	---	---	---	---	---	---	---	---	---	4,425
Lingcod	21,450	16,258	17,490	42,804	49,452	60,726	75,600	111,509	87,896	39,638	6,263	34,885	564,061
Perch	15,715	3,611	11,273	16,182	1,050	---	9,163	15,538	6,608	1,778	420	3,520	84,428
Rockfish	325,753	285,232	164,634	247,210	179,287	230,107	298,239	395,069	319,043	154,681	172,558	222,994	2,934,737
Sablefish	59,237	21,223	29,346	43,683	22,970	33,395	60,168	59,111	38,958	34,777	62,061	65,439	530,368
Salmon	---	---	---	188,432	708,534	928,138	1,288,421	453,437	211,320	---	---	---	3,778,282
Sanddab	7,482	3,984	7,404	11,723	7,845	5,529	12,238	21,726	20,944	6,834	1,693	4,001	111,403
Shark	---	---	---	---	---	---	---	---	105	185	---	---	290
Skate	---	---	---	---	---	658	476	225	278	383	---	1,808	3,828
Smelt	4,715	174	86	75,371	55,448	47,900	16,743	10,859	19,927	3,560	---	---	230,068
Smelt, whitebait	---	12,607	20,079	16,641	34,940	19,043	15,055	4,736	1,548	---	---	---	129,364
Sole, Dover	108,256	34,183	62,889	375,097	478,487	900,349	928,950	1,069,815	785,036	528,036	493,074	379,978	6,144,150
Sole, English	150,405	46,135	66,351	121,770	66,482	53,383	111,196	221,058	283,095	119,505	31,606	136,334	1,407,320
Sole, petrale	272,740	65,234	48,085	58,908	42,904	74,130	137,747	117,011	162,196	77,304	54,407	331,011	1,461,977
Sole, rex	47,083	28,743	26,333	44,951	34,940	44,138	54,687	74,383	101,685	45,093	23,879	66,031	591,911
Sole, sand	4,218	1,013	3,059	5,533	2,481	942	10,598	5,964	870	1,302	150	1,505	37,805
Sole, miscellaneous	92	315	100	---	---	---	---	8	24	---	---	---	539
Tuna, albacore	---	---	488	850	---	---	---	1,292,119	4,981,973	380,063	35,496	---	6,989,651
Turbot	464	---	105	---	---	---	---	1,422	1,129	1,300	140	205	5,998
Miscellaneous	---	---	---	---	---	---	---	---	---	---	---	---	105
Crustacean:													
Crab, market	290,483	64,007	41,353	58,460	56,982	7,402	481	---	---	---	---	210,861	730,029
Crab, rock	2,175	1,375	1,850	3,050	6,100	3,650	2,575	1,750	1,350	1,250	800	1,000	26,925
Shrimp, ocean	---	---	---	---	300,579	337,922	410,322	555,334	206,995	76,764	---	---	1,887,916
Mollusk:													
Clam, Washington	766	565	1,300	1,147	---	---	---	---	---	42	59	---	3,879
Octopus	305	448	---	124	109	186	457	465	742	360	1,931	3,383	8,510
Oyster, giant Pacific	78,919	83,788	95,497	76,819	64,673	31,736	30,465	31,325	60,155	141,579	133,180	114,296	942,412
Total pounds	1,402,267	646,137	610,622	1,419,676	2,129,055	2,784,651	3,449,522	4,516,218	7,304,908	1,619,836	1,017,837	1,601,147	28,501,576

TABLE 10—Continued
Monthly Landings of Commercial Fishing Boats in the Eureka Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
Waters north of state:													
Fish:													
Flounder	---	60	---	410	34	20	82	270	865	---	214	394	2,349
Lingcod	---	---	---	1,931	5,540	10,859	24,459	19,763	18,212	2,524	1,113	193	84,504
Rockfish	3,518	10,550	6,599	15,206	29,569	39,138	86,364	103,149	87,774	10,063	14,637	31,647	438,514
Sablefish	1,604	740	8,153	5,335	10,887	10,757	9,991	13,414	8,976	7,783	11,456	18,473	107,369
Salmon	---	---	---	---	---	---	---	95	56	---	---	---	151
Sanddab	94	102	---	94	---	102	---	---	946	---	---	---	1,358
Sole, Dover	13,375	4,127	31,962	124,018	126,574	151,639	177,060	175,046	196,369	87,517	88,998	213,003	1,389,083
Sole, English	670	2,065	---	2,927	1,888	15,425	5,237	10,625	28,880	2,735	5,540	2,902	78,894
Sole, petrale	---	3,314	---	2,786	1,780	42,542	102,568	161,561	39,833	18,321	2,451	7,798	383,024
Sole, rex	540	2,039	1,575	2,462	3,351	3,989	2,774	2,301	5,652	1,452	1,263	2,480	29,878
Sole, sand	---	---	---	---	---	---	---	120	---	---	---	---	120
Miscellaneous (animal food)	---	---	---	---	19,327	---	---	---	---	---	---	---	19,327
Total pounds	19,871	23,297	48,289	155,169	198,950	274,471	408,535	486,344	387,563	130,395	125,672	276,910	2,535,466
Grand total	1,422,138	669,434	658,911	1,574,845	2,328,005	3,059,122	3,858,057	5,002,562	7,692,471	1,749,931	1,143,509	1,878,057	31,037,042

TABLE 11
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Anchovy.....	---	---	---	1,225	---	2,900	3,000	14,100	2,400	4,150	---	---	27,775
Cabezon.....	---	---	---	---	50	---	144	---	11	---	---	---	205
Carp.....	35,240	58,705	21,578	18,147	15,945	13,960	9,750	7,418	11,085	15,190	16,660	18,350	242,028
Croaker, white.....	714	858	105	235	1,768	1,490	1,460	1,588	717	1,970	172	832	11,909
Flounder.....	54,866	92,261	15,621	19,525	8,900	3,725	5,635	2,520	6,255	19,060	3,955	26,950	259,178
Flounder, arrowtooth.....	---	75	210	90	275	1,330	605	965	350	---	---	---	3,900
Hake, Pacific.....	---	---	---	---	4,965	20,820	19,925	20,465	5,535	---	---	---	71,710
Halibut, California.....	29,544	38,965	8,996	1,543	500	1,813	2,266	1,662	1,299	17,408	3,303	18,502	125,801
Hardhead.....	9,270	51,685	17,235	15,160	5,955	9,590	732	---	100	8,065	16,000	13,460	148,242
Herring, Pacific.....	333,064	43,245	240	---	---	---	---	---	---	---	---	471	377,020
Lingcod.....	21,111	27,496	15,858	27,158	50,660	30,119	32,597	30,404	31,000	23,598	12,882	13,275	315,898
Mackerel, jack.....	---	---	---	---	---	---	---	---	865	80	---	---	945
Perch.....	5,770	2,714	8,875	7,353	---	---	1,170	1,316	3,153	1,348	40	655	32,322
Rockfish.....	201,388	296,217	178,877	151,571	151,124	117,952	109,428	175,358	323,186	270,222	234,866	148,789	2,358,608
Sablefish.....	76,017	80,143	124,621	86,569	83,685	81,928	48,004	101,369	62,860	23,155	36,953	---	840,564
Salmon.....	---	---	---	281,562	884,743	468,543	876,173	765,567	217,003	17,684	11,925	12,530	3,493,591
Sardines.....	30,590	30,316	39,546	31,044	44,035	20,533	22,775	24,047	25,500	16,127	8,093	160	310,525
Seabass, white.....	13,905	9,345	156	10,287	9,506	13,322	11,208	4,285	10,076	31,614	13,868	8,508	25,707
Shark.....	15,525	12,442	13,575	12,800	7,425	5,550	6,525	5,500	6,795	11,175	7,075	9,050	152,558
Skate.....	---	---	---	---	---	---	---	---	---	---	---	---	113,437
Snell.....	2,457	5,174	5,980	8,352	7,260	5,489	3,016	5,059	6,362	1,853	417	---	51,149
Snelt, whitebait.....	---	2,311	3,452	1,127	6,092	2,434	2,411	889	---	---	---	---	18,716
Sole, Dover.....	166,587	266,937	428,670	285,531	237,588	172,062	105,857	95,917	96,851	9,421	92,852	72,345	2,030,022
Sole, English.....	447,525	131,863	117,964	104,499	168,435	120,325	138,740	124,940	129,995	153,935	126,113	144,345	1,902,841
Sole, petrale.....	80,660	59,065	73,593	71,435	161,910	88,207	81,867	56,231	47,625	60,347	109,068	23,350	922,376
Sole, rex.....	85,870	40,485	42,205	63,905	61,055	28,995	34,210	28,339	38,895	30,145	41,235	19,335	514,644
Sole, sand.....	46,660	55,050	20,897	12,010	7,260	25,630	10,700	4,240	9,430	23,635	3,135	25,835	244,442
Sole, miscellaneous.....	208	40	39	---	---	---	---	---	---	35	---	---	322
Splittail.....	4,487	331	80	155	300	30	---	---	---	---	---	---	5,383
Tuna, albacore.....	---	---	---	---	---	---	---	88,045	2,659,281	614,280	57,083	5,798	3,424,487

TABLE 11—Continued
Monthly Landings and Shipments of Commercial Fish Into the San Francisco Area During 1963 *

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California Waters:—Continued													
Fish:—Continued													
Turbot.....	17,555	8,525	4,245	4,103	3,770	2,185	2,105	2,674	2,625	2,925	1,910	2,525	55,147
Miscellaneous.....	11	---	50	20	---	---	---	---	---	---	1,537	405	81
Miscellaneous (animal food).....	---	---	---	---	---	---	---	---	---	---	---	---	1,942
Crustacean:													
Crab, market.....	120,930	71,205	16,272	24,155	11,568	10,445	---	---	---	---	722,411	233,333	1,210,319
Shrimp, bay.....	---	---	---	---	63,124	81,295	46,008	12,530	800	---	---	---	1,225
Shrimp, ocean.....	---	---	---	---	---	---	---	---	---	---	---	---	204,957
Mollusk:													
Axalone.....	4,571	---	2,792	18,503	13,963	6,751	15,107	10,144	5,830	250	1,514	4,817	84,242
Ostrea.....	5,256	8,155	4,979	3,635	6,330	2,857	3,150	2,555	4,015	2,110	3,701	4,375	50,848
Oyster, eastern.....	1,462	1,232	1,104	909	807	611	892	737	873	1,093	1,823	1,969	13,502
Oyster, giant Pacific.....	18,581	17,902	19,211	12,516	12,294	9,160	5,279	3,138	12,571	18,835	20,726	22,014	172,227
Miscellaneous mollusk.....	45	57	52	60	54	57	43	---	---	---	---	---	370
Total pounds.....	1,830,779	1,413,141	1,203,017	1,275,102	2,033,336	1,349,838	1,603,684	1,592,417	3,723,246	1,374,468	1,543,320	879,437	19,821,785
Waters South of State:													
Fish:													
Tuna, bluefin.....	---	---	---	---	---	---	88,001	138,087	---	---	---	---	88,001
Tuna, skipjack.....	---	---	---	---	---	---	52,261	---	---	---	21,700	---	212,048
Tuna, yellowfin.....	---	---	---	---	---	---	448,234	694,227	---	---	255,077	---	1,397,538
Total pounds.....	---	---	---	---	---	---	588,496	832,314	---	---	276,777	---	1,697,587
SHIPMENTS:†													
Fish:													
Shad.....	---	---	---	---	---	---	---	---	---	2,765	---	---	2,765
Tuna, albacore.....	199,932	200,000	267,784	361,327	90,756	160,000	---	3,920	---	102,538	14,729	171,970	1,572,268
Tuna, bigeye.....	121,824	---	172,772	136,466	---	---	10,015	---	---	74,465	12,591	146,177	674,310
Tuna, bluefin.....	---	---	---	---	---	---	51,990	---	---	---	---	---	51,990
Tuna, skipjack.....	---	---	---	---	---	---	---	---	88,620	---	---	---	88,620
Tuna, yellowfin.....	2,056,033	2,447,940	3,279,718	2,359,083	1,386,860	1,479,034	628,495	791,590	218,380	271,927	317,560	601,568	15,838,188
Miscellaneous.....	---	10,000	---	11,000	---	18,340	---	51,000	---	30,000	---	---	120,340
Total pounds.....	2,377,789	2,637,940	3,760,794	2,956,566	1,477,616	1,657,374	690,500	846,510	307,000	481,695	344,880	919,015	18,477,679
GRAND TOTAL.....	4,208,568	4,071,081	4,963,811	4,231,668	3,510,952	3,007,212	2,882,680	3,271,241	4,030,246	1,856,163	2,164,977	1,798,482	39,997,051

* Includes Sacramento area landings.

† For origin of shipments refer to Table 7.

TABLE 12
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Anchovy	771,060	571,900	21,150	16,678	268,800	53,800	94,648	32,997	17,800	688,625	265,494	559,300	3,360,242
Bohito, Pacific	---	---	---	---	---	---	1,017	---	---	152	---	---	1,169
Cabezon	44	10	60	145	98	141	284	193	105	389	130	399	1,730
Croaker, white	623	4,492	13,634	2,638	1,887	4,450	6,443	9,870	9,870	2,751	326	154	49,802
Flounder	1,430	13,071	8,729	5,023	4,437	2,973	4,833	6,175	4,269	4,239	3,322	12,155	70,656
Hake, Pacific	260	3,423	3,181	7,600	29,435	4,575	14,529	6,835	2,455	1,610	640	---	67,989
Halibut, California	684	273	3,050	39,976	178,189	20,774	13,353	14,139	2,536	1,915	1,537	5,207	62,361
Herring, Pacific	---	---	---	---	---	---	3,210	7,660	7,338	3,406	500	600	248,572
Lingcod	20,250	3,254	8,659	7,228	2,966	5,038	6,943	7,660	7,338	3,406	6,776	10,569	90,087
Mackerel, jack	480	1,605	4,090	75	547,040	3,782	610,379	119,491	40,861	222,830	93,244	8,325	1,652,202
Mackerel, Pacific	---	---	---	---	---	---	---	---	480	---	---	---	480
Perch	68	364	3,659	7,669	---	---	355	584	197	95	55	237	1,983
Pompano, Pacific	---	---	20	75	1,805	2,702	5,569	3,089	298	50	---	---	21,556
Rockfish	176,921	161,183	217,743	256,362	227,616	198,215	209,211	255,887	188,526	265,010	125,406	184,620	2,466,700
Sablefish	41,849	7,343	11,150	39,570	25,605	25,605	18,481	32,429	38,250	5,690	3,414	23,900	271,226
Salmon	---	---	---	118,111	187,235	174,452	17,200	12,067	3,289	---	---	---	512,354
Sandibar	15,431	5,809	8,092	14,311	20,036	13,629	13,971	13,089	10,991	9,439	582	2,455	130,435
Sardine	---	10	3,600	---	5,510	58,694	87,999	747,227	334,905	18,025	466	73,000	1,340,196
Seabass, white	82	---	669	---	---	---	245	199	265	1,023	1,363	588	3,934
Shark	1,141	2,844	964	1,075	2,181	9,060	5,160	6,429	946	7,067	3,728	4,749	45,344
Skate	7,666	12,889	18,195	13,153	6,450	6,285	7,884	7,528	3,820	5,184	3,571	4,339	96,464
Smelt	210	5,751	1,189	900	836	4,202	8,067	5,790	4,882	382	311	661	33,181
Sole, Dover	---	---	---	6,725	20,290	16,785	25,835	10,920	130	---	---	---	82,355
Sole, English	21,719	13,563	37,905	70,002	59,605	35,075	33,433	42,200	34,038	15,228	8,640	18,745	300,453
Sole, petrale	16,620	7,928	28,083	33,272	32,261	15,835	29,467	34,917	27,211	3,215	1,692	3,110	233,611
Sole, rex	11,730	6,478	10,030	7,198	5,118	4,550	8,360	5,648	6,528	5,100	11,215	23,600	105,555
Sole, sand	---	---	---	---	---	---	260	---	---	---	---	---	260
Sole, miscellaneous	549	6,130	4,572	397	642	1,716	1,180	2,411	645	2,447	1,059	2,153	23,901
Swordfish	---	---	---	---	---	---	---	---	---	---	---	---	---
Tuna, albacore	---	---	---	---	---	---	11,628	205,579	3,654,865	1,952,707	16,008	---	5,840,787

TABLE 12—Continued
Monthly Landings of Commercial Fishing Boats in the Monterey Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California Waters:—Continued													
Fish:—Continued													
Turbot.....	153	---	---	275	100	---	290	40	---	---	---	---	330
Miscellaneous.....	13,800	9,800	12,240	20,225	9,070	112	15	15	287	590	---	63	1,610
Miscellaneous (animal food).....	---	---	---	---	---	---	2,200	6,850	3,005	3,440	---	2,130	83,360
Crustacean:													
Crab, market.....	560	1,480	1,951	517	41	---	---	/ 20	---	---	960	3,230	8,759
Crab, rock.....	54	92	640	191	---	---	---	---	---	---	104	1,081	1,081
Prawn.....	---	---	769	362	---	---	---	1,953	229	248	512	4,372	8,445
Mollusk:													
Abalone.....	---	---	---	---	---	500	342	1,021	---	---	---	---	1,863
Octopus.....	---	30	773	1,461	58	---	---	1,988	824	517	1,251	6,266	13,168
Oyster, giant Pacific.....	622	143	1,327	579	---	---	---	---	---	382	---	884	3,937
Squid.....	253,700	153,395	---	903,700	2,195,945	1,489,441	964,788	427,575	305,046	3,318	5,820	48,735	6,754,463
Miscellaneous mollusk.....	20	14	6	8	31	21	10	---	8	---	58	116	292
GRAND TOTAL.....	1,368,916	1,003,722	427,200	1,557,435	3,852,896	2,160,625	2,211,789	2,016,179	4,708,814	3,234,308	560,474	1,006,662	24,109,000

TABLE 13
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Anchovy	---	---	---	---	---	11	17	11,074	320	---	---	---	11,422
Baraouda, California	15	235	503	21,121	10	---	76	2,735	173	3,163	5,506	6,764	37,490
Bonito, Pacific	909	20	---	40	60	53	136	---	2,739	4,590	3,048	30	15,020
Cabezon	---	---	14	---	---	---	---	---	---	5	174	347	869
Croaker, white	---	---	---	---	---	460	3,604	---	---	25	---	---	4,089
Flounder	4,838	4,609	1,709	1,042	---	---	125	30	520	250	241	3,186	10,550
Halibut, California	38,709	25,102	20,449	23,056	16,475	20,654	23,066	14,784	19,475	22,010	19,050	35,210	275,010
Herring, Pacific	---	50	---	---	20	---	---	---	---	2,841	5,245	6,482	70
Lingcod	5,389	1,392	1,105	13,253	11,479	7,050	8,209	10,569	4,268	---	---	---	77,282
Mackerel, jack	221,000	261,500	900	---	---	100,000	246,000	338,480	794,730	2,147,400	1,877,290	1,034,000	7,021,300
Mackerel, Pacific	40,000	---	248,100	---	---	---	54,000	165,300	348,130	1,232,800	278,000	64,500	2,430,830
Perot	2,713	3,003	6,158	4,565	---	---	2,167	2,290	1,102	1,619	1,147	2,645	27,409
Pompano, Pacific	---	---	---	---	---	10	433	---	100	365	---	---	908
Rockfish	224,286	222,285	159,410	256,367	306,680	178,969	188,474	274,096	168,579	145,424	282,470	195,247	2,602,296
Sablefish	2,655	2,370	20,410	9,806	2,485	1,975	3,730	2,715	1,200	2,175	2,535	5,380	57,436
Salmon	---	---	---	3,423	23,739	19,525	18,274	7,602	1,400	---	---	---	73,963
Sanddab	---	389	---	---	---	---	---	---	---	---	---	---	389
Sardine	---	---	---	---	---	9,600	---	326,945	26,200	37,500	---	---	400,245
Sea bass, giant	---	---	32	38	40	---	91	53	48	192	---	86	991
Seabass, white	731	615	615	1,187	1,776	2,830	2,966	5,566	14,158	19,882	16,116	4,701	71,114
Shark	11,754	1,243	9,983	4,175	10,549	17,121	3,018	7,458	7,690	4,341	3,461	4,893	85,686
Sheephead, California	---	---	---	---	---	42	---	---	---	---	---	---	34
Skate	1,126	217	290	183	163	---	---	96	83	---	---	176	76
Smelt	---	28	---	---	---	115	150	157	---	---	---	---	2,334
Sole, Dover	63	---	15,118	34,681	18,399	15,782	27,397	7,368	13,084	1,080	1,085	910	134,917
Sole, English	---	---	---	---	---	---	---	---	---	---	---	---	---
Sole, petrale	67,472	100,549	94,585	42,023	53,668	16,433	22,652	10,094	17,038	19,284	13,163	17,359	474,320
Sole, rex	24,302	26,580	24,673	30,673	40,594	15,265	37,332	34,295	24,681	7,327	32,140	30,152	316,836
Sole, sand	58,103	22,990	15,299	13,361	11,746	5,188	16,907	17,378	30,256	25,290	35,220	72,046	323,684
Sole, sand	14,433	18,145	3,853	1,696	215	---	---	125	605	915	210	---	48,781
Sole, miscellaneous	81	614	735	733	1,565	51	55	25	33	25	---	1,020	4,927

TABLE 13—Continued
Monthly Landings of Commercial Fishing Boats in the Santa Barbara Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:—Continued													
California Waters:—Continued													
Fish:—Continued													
Swordfish.....	---	---	---	---	---	---	9,841	16,053	1,025	120	---	---	27,039
Tuna, albacore.....	91	---	---	---	---	---	161,972	533,282	1,334,206	1,314,162	264,431	234	3,608,378
Tuna, bluefin.....	---	---	---	---	---	---	---	---	---	12	---	---	12
Turbot.....	8,804	6,408	5,671	1,997	990	42	832	988	1,270	1,540	85	6,352	34,979
Whitefish, ocean.....	---	11	---	---	5	---	---	---	---	---	---	---	16
Yellowtail, California.....	---	21	---	---	44	---	45	14	192	231	335	---	882
Miscellaneous.....	---	8	76	4	---	---	---	93	19	60,105	48	261	509
Miscellaneous (animal food).....	92,813	57,332	93,373	130,809	76,339	50,603	80,027	47,711	83,899	---	39,235	117,086	929,332
Crustacean:													
Crab, market.....	12	60	485	1,170	336	197	16,496	7,725	2,286	---	53	41	2,354
Crab, rock.....	9,175	7,617	7,238	15,817	11,120	7,345	---	---	---	1,777	5,530	8,390	100,416
Lobster, spiny.....	17,147	19,656	11,410	---	---	---	---	---	---	27,273	24,451	23,398	123,335
Shrimp, ocean.....	---	---	---	---	190	---	---	---	---	---	---	---	190
Mollusk:													
Abalone.....	259,360	---	82,013	217,820	340,063	224,163	324,108	394,681	258,345	226,457	210,849	264,869	2,802,738
Octopus.....	28	---	440	---	300	215	215	500	135	---	---	---	1,833
Oyster, giant Pacific.....	20,250	14,927	17,297	5,673	6,389	6,312	6,628	4,486	6,661	12,668	17,435	18,213	136,939
Squid.....	68,000	553,000	---	---	---	---	---	---	---	215	---	53,000	674,215
Miscellaneous mollusk.....	167	---	---	---	---	---	---	---	---	---	---	---	167
Grand total.....	1,191,754	1,348,698	843,412	837,153	935,418	700,517	1,256,803	2,247,805	3,164,562	5,323,062	3,128,358	1,985,496	22,963,048

TABLE 14
Monthly Landings and Shipments of Commercial Fish Into the Los Angeles Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Anchovy.....	166,985	22,560	74,285	73,875	181,665	133,748	111,212	80,701	110,430	112,475	24,097	49,908	1,170,941
Barracuda, California.....	25,369	---	22,851	20,509	53,831	101,776	31,305	10,851	1,405	14,898	10,097	11,603	304,445
Blacksmith.....	---	---	---	---	---	---	2,900	---	---	---	---	---	2,900
Bonito, Pacific.....	1,346,071	919,957	647,532	1,440	4,821	59,229	39,016	19,980	159,200	309,965	292,681	111,857	3,911,449
Carp.....	4,453	8,475	35	---	---	---	---	---	---	100	---	---	13,063
Croaker, white.....	29,708	92,828	54,935	83,810	36,139	26,701	11,273	8,477	14,573	50,598	14,657	58,191	481,890
Flyingfish.....	---	---	---	---	9,807	13,712	16,900	3,770	2,321	103	---	---	46,613
Halibut.....	---	---	82	---	---	---	---	---	---	1,974	1,012	5,605	8,673
Halibut, California.....	48,268	75,082	41,851	24,236	27,868	6,389	9,420	6,442	5,698	5,564	4,003	13,603	268,424
Lingcod.....	13	---	121	17	---	30	18	32	51	38	---	136	456
Mackerel, jack.....	13,028,064	5,900,713	4,010,145	6,241,195	5,720,127	5,715,680	1,980,854	10,142,952	9,326,682	14,891,664	8,485,245	1,324,516	86,767,837
Mackerel, Pacific.....	1,400,320	1,889,105	2,001,566	2,640,075	6,668,551	1,753,837	1,362,431	4,518,785	1,919,114	7,344,312	2,958,073	3,331,134	37,787,303
Opaleye.....	12	1,754	1,317	2,082	83	130	156	156	255	978	386	2,015	4,080
Perch.....	1,500	2,240	2,232	2,139	2,949	3,818	519	526	552	2,898	42	1,951	13,724
Pompano, Pacific.....	---	---	---	---	---	---	4,853	4,968	3,100	4,578	965	1,115	32,557
Rockfish.....	67,564	41,424	49,629	55,200	74,272	28,653	10,632	15,563	15,320	22,720	23,008	82,198	486,203
Sablefish.....	---	---	---	---	---	---	---	---	---	---	---	348	348
Salmon.....	80	105	90	141	80	795	---	23	8	19	---	---	845
Sanddab.....	392,255	519,019	481,100	775,336	775,380	364,220	275,280	38,540	227,865	927,694	369,839	13	5,390,780
Sardine.....	---	---	---	---	---	---	---	---	---	---	---	244,252	---
Sculpin.....	187	38	140	1,121	2,086	710	7,786	7,347	1,009	316	10	235	20,985
Sea bass, giant.....	91	312	149	104	760	574	1,704	296	603	1,099	565	450	6,707
Seabass, white.....	1,605	5,012	1,823	3,400	20,251	24,550	27,459	63,464	47,513	33,268	13,056	7,219	248,650
Shark.....	11,978	11,867	9,747	3,498	28,826	37,774	19,657	32,593	12,028	17,790	22,581	12,042	220,381
Sheephead, California.....	109	102	155	54	767	460	614	72	145	316	893	528	4,245
Skate.....	---	---	125	480	111	---	13	---	---	---	19	---	748
Smelt.....	1,625	685	395	1,108	660	2,225	16,368	405	500	7,902	6,790	4,945	43,608
Sole, English.....	---	---	---	717	---	---	---	---	---	---	---	---	43,717
Sole, petrale.....	---	19	---	105	---	---	---	---	---	---	---	---	124
Sole, miscellaneous.....	73	178	70	30	163	---	85	67	---	18	18	---	702

Sea bass, giant-----	11,565	29,392	18,647	4,245	6,698	4,040	37,550	40,705	40,570	39,369	230	4,919	238,030
Seabass, white-----	32,773	63,246	16,983	46,814	61,638	20,186	14,840	26,882	43,816	28,060	10,835	28,725	396,798
Shark-----	7,005	5,040	287	1,398	9,187	4,544	---	2,193	1,095	1,669	1,669	2,530	36,727
Sheephead, California-----	12	---	---	---	---	35	---	200	---	172	---	---	421
State-----	---	---	---	---	---	---	---	14	---	---	---	---	14
Swordfish-----	---	---	---	---	---	---	---	679	---	---	---	---	679
Tuna, albacore-----	---	---	---	---	---	---	96,169	3,055,560	415,292	301,080	14,471	---	3,882,572
Tuna, bluefin-----	---	96,551	57,225	---	268,267	304,602	2,370,976	6,938,185	5,501,940	3,267,707	274,816	98,963	19,179,232
Tuna, skipjack-----	4,270,518	6,232,704	4,413,271	5,791,385	4,415,804	3,261,428	7,870,884	8,098,739	5,053,706	7,918,645	4,557,314	7,674,250	69,559,648
Tuna, yellowfin-----	5,578,695	10,263,195	9,857,046	13,752,835	7,481,848	3,593,676	10,991,826	8,622,024	2,507,840	2,197,884	1,582,618	6,661,810	83,091,297
Wahoo-----	---	---	---	---	1,500	---	---	---	---	18,727	---	---	20,227
Whitefish, ocean-----	50	---	---	---	---	---	---	150	---	---	---	---	900
Yellowtail, California-----	9,096	6,303	618	910	4,118	8,686	817	173	1,175	255	912	3,740	36,803
Miscellaneous-----	---	798	---	---	---	---	100	---	---	---	---	---	858
Total pounds-----	9,962,577	16,800,079	14,393,222	19,601,062	12,269,368	7,203,154	21,400,794	26,808,286	13,569,188	13,777,849	6,444,465	14,546,188	176,776,232
SHIPMENTS:*													
Fish:													
Haitbut, California-----	---	---	---	---	---	248	585	583	647	2,070	2,197	2,027	8,357
Rockfish-----	---	---	---	---	---	---	3,789	4,407	481	2,174	295	---	11,146
Sablefish-----	34,884	---	---	---	10,380	---	13,130	---	3,353	104,985	12,735	---	188,559
Salmon-----	321	61,977	14,647	6,292	---	5,439	---	580	35,282	51,190	---	---	175,728
Shark-----	---	---	---	---	---	178	792	960	82	223	50	203	2,488
Sturgeon-----	1,063	---	---	---	---	---	---	---	---	---	---	---	1,063
Tuna, albacore-----	2,062,020	1,030,117	3,045,411	1,191,248	160,485	101,200	98,435	341,688	1,014,300	2,797,405	1,028,381	2,436,652	15,307,342
Tuna, bigeye-----	---	---	---	---	---	---	---	---	---	---	---	59,675	39,675
Tuna, bluefin-----	---	---	---	943,122	67,469	441,989	456,155	108,549	260,913	18,214	---	---	2,296,402
Tuna, skipjack-----	882,530	---	366,283	32,566	---	1,084,617	28,621	1,907,800	1,455,094	441,587	---	---	6,199,098
Tuna, yellowfin-----	4,689,993	3,791,202	4,781,210	2,024,517	2,092,045	1,787,825	446,640	1,968,973	2,763,815	5,001,777	1,506,900	4,055,159	34,910,056
Miscellaneous-----	---	34,905	8,000	---	15,399	5,600	20,120	24,137	41,180	74,773	34	239	224,378
Mollusk:													
Abalone-----	---	---	10,000	---	---	---	---	---	---	---	---	---	10,000
Total pounds-----	7,670,811	4,918,201	8,225,551	4,206,837	2,345,769	3,427,087	1,068,267	4,357,677	5,575,147	8,494,398	2,550,592	6,553,955	59,394,292
Grand total-----	36,070,234	32,114,432	30,560,981	34,083,232	28,498,536	19,095,332	27,810,979	51,204,032	41,988,834	55,698,523	23,725,632	27,276,958	408,127,505

* For origin of shipments refer to Table 7.

TABLE 15
Monthly Landings and Shipments of Commercial Fish Into the San Diego Area During 1963

Species	January	February	March	April	May	June	July	August	September	October	November	December	Total pounds
LANDINGS FROM:													
California Waters:													
Fish:													
Barrauda, California	---	779	169	15	248	2,980	1,218	2,992	2,307	15,699	19,054	31,450	5,419
Bonito, Pacific	2,013	3,390	1,235	1,225	4,335	4,335	2,237	1,204	578	141	159	95	85,867
Croaker, white	148	209	---	15	247	58	109	1,204	578	141	159	95	2,963
Halibut, white	---	10	---	---	---	---	---	---	---	---	---	---	10
Halibut, California	15,048	12,925	13,443	14,713	5,370	9,703	18,321	10,806	5,908	2,832	2,652	8,380	120,101
Lingcod	35	32	10	13	19	40	---	---	---	---	---	---	149
Mackerel, Pacific	145	1,362	52	---	403	2,421	---	70	2,972	11,467	2,179	2,148	23,219
Opaleye	---	---	12	---	286	---	---	---	---	---	---	---	298
Pompano, Pacific	---	---	---	---	55	---	---	---	---	---	80	---	135
Rockfish	23,950	16,175	23,148	26,941	26,480	20,794	25,085	29,889	11,413	4,248	19,370	19,765	247,258
Sablefish	140	---	---	365	87	606	158	---	136	244	102	---	1,838
Sanddab	---	10	---	---	116	312	50	16	---	89	279	280	1,152
Sculpin	2,332	904	1,196	4,842	4,105	2,663	10,768	11,394	1,769	7,998	2,503	3,750	54,224
Sea bass, giant	14	70	565	605	597	2,461	159	1,332	210	210	190	49	6,262
Seabass, white	50	496	1,315	370	2,125	2,659	1,538	3,710	5,354	1,982	2,297	1,178	23,074
Shark	9,635	3,074	3,773	6,481	11,451	17,210	13,231	8,781	8,822	8,278	5,498	4,719	100,963
Sheephead, California	2,127	1,243	343	992	879	205	435	191	188	5,770	4,358	4,158	20,889
Sole, miscellaneous	244	113	194	390	1,306	4,025	1,955	2,412	2,313	72	---	---	13,024
Swordfish	---	---	---	---	---	---	2,644	2,716	2,391	1,499	---	---	9,250
Tuna, albacore	---	---	---	---	---	---	428,388	408,253	1,429,455	365,073	3,566	11,312	2,646,047
Tuna, bluefin	---	---	---	---	---	---	---	---	31,378	---	---	---	31,378
Tuna, skipjack	---	---	---	---	---	---	---	570	80,555	28,139	55,136	92	164,492
Tuna, yellowfin	---	---	---	---	---	---	---	---	22,082	74	---	---	22,156
Whitefish, ocean	126	---	---	---	---	---	---	---	---	---	208	---	334
Yellowtail, California	16	---	1,173	602	836	2,071	884	2,162	228	20	---	---	7,992
Miscellaneous	---	---	---	---	---	---	10	---	---	---	---	---	10
Crustacean:													
Crab, rock	1,244	552	140	---	---	---	---	---	---	968	1,050	336	4,290
Lobster, spiny	15,119	8,031	5,340	---	---	---	---	---	---	86,565	53,341	40,319	208,715

Mollusk:	12,350	---	9,838	22,625	21,613	40,777	35,189	11,781	2,940	17,588	10,629	30,778	216,008
Abalone-----	310	---	---	---	---	---	---	---	---	---	---	---	310
Squid-----	---	---	---	---	---	---	---	---	---	---	---	---	---
Total pounds-----	88,046	49,375	61,946	80,104	76,223	113,330	542,379	498,279	1,610,999	555,686	182,651	158,809	4,017,827
Waters South of State:													
Fish:													
Barracuda, California-----	4,915	---	4,790	---	---	---	270	20	2,730	3,447	1,892	2,190	20,254
Bonito, Pacific-----	---	---	---	---	---	23	---	290	---	2,393	2,300	---	5,006
Cabrilla, spotted-----	---	6,055	---	---	---	---	1,002	465	---	---	1,922	2,696	12,140
Croaker, white-----	---	---	---	---	---	---	155	---	---	61	---	---	216
Grouper-----	10,451	6,724	2,519	200	---	---	5,117	---	---	5,855	7,131	15,935	53,932
Halibut, California-----	6,004	24,280	18,100	10,449	14,335	15,321	31,020	43,935	24,824	45,222	3,466	16,942	253,898
Mackerel, Pacific-----	---	---	142	---	---	702	---	---	100	---	1,780	4,437	115,433
Rockfish-----	21,349	26,980	21,422	11,440	14,041	11,753	1,591	465	45	75	---	---	190
Sculpin-----	12,221	901	3,350	2,350	990	2,874	2,401	398	50	3,528	1,181	21,345	51,589
Sea bass, giant-----	---	---	---	---	---	---	---	---	---	---	---	---	---
Seabass, white-----	12,657	10,854	120	7,195	13,101	10,684	8,820	14,197	6,639	13,141	16,703	7,832	121,943
Shark-----	1,776	867	260	855	1,102	2,595	910	1,848	1,665	3,140	4,695	3,675	23,388
Sheephead, California-----	268	---	---	25	---	---	280	298	147	1,172	190	---	2,380
Swordfish-----	269	---	---	---	---	---	---	1,454	---	---	---	---	1,723
Tuna, albacore-----	---	---	---	---	---	---	487,885	2,231,334	253,003	65,162	11,930	1,953	3,051,267
Tuna, bluefin-----	---	---	---	---	---	---	1,397,916	823,233	1,060,176	663,707	10,184	---	3,955,216
Tuna, skipjack-----	1,580,016	1,254,617	744,167	2,736,353	3,539,388	111,561	2,543,359	3,484,164	2,487,768	2,098,659	2,239,581	1,804,599	24,624,132
Tuna, yellowfin-----	3,896,373	1,365,515	4,020,706	2,094,551	3,424,049	312,687	2,682,664	1,845,003	1,798,050	570,480	615,555	2,458,278	25,034,111
Wahoo-----	942	---	---	---	---	192	---	---	---	---	328	211	1,673
Whitefish, ocean-----	251	---	---	---	---	1,634	---	---	---	---	---	1,807	2,058
Yellowtail, California-----	875	14	65	---	---	---	500	210	675	448	916	2,143	7,480
Miscellaneous-----	---	---	---	---	---	18	---	---	---	---	---	---	18
Total pounds-----	5,548,567	2,696,807	4,815,641	4,833,418	7,006,906	470,044	7,163,950	8,447,399	5,635,872	3,476,490	2,919,754	4,324,043	57,338,891
SHIPMENTS:*													
Fish:													
Halibut, California-----	---	---	---	---	---	103	---	---	---	---	---	---	103
Tuna, albacore-----	---	---	---	---	---	---	---	65,627	---	---	---	---	65,627
Tuna, skipjack-----	---	---	1,553,005	---	---	---	---	520,001	1,174,955	---	---	---	3,247,961
Tuna, yellowfin-----	---	309,283	1,685,529	---	---	---	---	---	---	---	---	---	1,994,812
Total pounds-----	---	309,283	3,238,534	---	---	103	---	585,628	1,174,955	---	---	---	5,308,503
Grand total-----	5,633,613	3,055,465	8,116,121	4,913,522	7,093,129	583,477	7,708,329	9,531,306	8,421,826	4,035,176	3,102,405	4,482,852	66,665,221

* For origin of shipments refer to Table 7.

TABLE 16

Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San* Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS:							
Fish:							
Anchovy	---	27,775	3,360,242	11,422	1,170,941	---	4,570,380
	---	\$2,900	\$49,396	\$933	\$24,356	---	\$77,585
Barracuda, California	---	---	---	37,490	315,551	25,673	378,714
	---	---	---	\$5,852	\$51,404	\$4,762	\$62,018
Blacksmith	---	---	---	---	2,900	---	2,900
	---	---	---	---	\$61	---	\$61
Bonito, Pacific	---	---	1,169	15,020	3,915,460	90,873	4,022,522
	---	---	\$65	\$381	\$108,459	\$3,780	\$112,686
Cabezon	---	205	1,737	869	---	---	2,811
	---	\$13	\$142	\$50	---	---	\$205
Cabrilla, spotted	---	---	---	---	24,948	12,140	37,088
	---	---	---	---	\$4,299	\$1,980	\$6,279
Carp	---	242,028	---	---	13,063	---	255,091
	---	\$11,399	---	---	\$653	---	\$12,052
Croaker, white	---	11,909	49,802	4,089	482,080	3,179	551,089
	---	\$650	\$3,452	\$134	\$27,991	\$368	\$32,595
Flounder	174,926	259,178	70,656	16,550	---	---	521,310
	\$8,729	\$14,514	\$6,402	\$857	---	---	\$30,502
Flounder, arrowtooth	13,445	3,900	---	---	---	---	17,345
	\$667	\$143	---	---	---	---	\$810
Flyingfish	---	---	---	---	46,613	---	46,613
	---	---	---	---	\$3,436	---	\$3,436
Grouper	---	---	---	---	179,550	53,932	233,482
	---	---	---	---	\$38,388	\$12,561	\$50,949
Hake, Pacific	---	71,710	67,989	---	---	---	139,699
	---	\$1,083	\$1,143	---	---	---	\$2,226
Halfmoon	---	---	---	---	8,673	10	8,683
	---	---	---	---	\$1,873	\$1	\$1,874
Halibut, California	365	125,801	62,361	278,040	279,803	373,999	1,120,369
	\$95	\$27,802	\$14,704	\$62,003	\$66,202	\$73,379	\$244,185
Halibut, Pacific	4,508	---	---	---	---	---	4,508
	\$1,220	---	---	---	---	---	\$1,220
Hardhead	---	148,242	---	---	---	---	148,242
	---	\$29,648	---	---	---	---	\$29,648
Herring, Pacific	4,425	377,020	248,572	70	---	---	630,087
	\$221	\$3,393	\$18,071	\$7	---	---	\$21,692
Lingcod	648,655	315,888	90,087	77,282	947	149	1,133,008
	\$49,816	\$24,198	\$8,604	\$5,626	\$101	\$15	\$88,360
Mackerel, jack	945	1,652,202	7,021,300	86,767,837	---	---	95,442,284
	\$29	\$38,514	\$128,490	\$1,822,113	---	---	\$1,989,146
Mackerel, Pacific	---	480	2,430,830	37,787,303	24,063	---	40,242,676
	---	\$38	\$43,755	\$816,206	\$1,362	---	\$861,361
Opaleye	---	---	---	---	4,080	298	4,378
	---	---	---	---	\$694	\$29	\$723
Perch	84,928	32,322	13,283	27,409	14,942	---	172,884
	\$11,552	\$3,587	\$1,679	\$6,064	\$2,598	---	\$25,480
Pompano, Pacific	---	---	24,556	908	32,557	135	58,156
	---	---	\$8,607	\$171	\$8,716	\$11	\$17,505
Rockfish	3,373,251	2,358,608	2,466,700	2,602,296	585,914	362,691	11,749,460
	\$167,450	\$121,750	\$134,095	\$114,101	\$70,328	\$44,260	\$681,984
Sablefish	637,937	840,564	271,226	57,436	348	1,838	1,809,349
	\$55,518	\$28,747	\$11,012	\$2,530	\$35	\$189	\$98,340
Salmon	3,778,433	3,493,591	512,354	73,963	845	---	7,859,186
	\$1,668,062	\$1,956,901	\$289,650	\$41,506	\$587	---	\$3,950,606
Sanddab	112,761	310,525	130,435	389	521	1,152	555,783
	\$9,224	\$20,960	\$6,847	\$8	\$101	\$251	\$37,391
Sardine	---	---	1,340,196	400,245	5,390,780	---	7,131,221
	---	---	\$63,794	\$20,532	\$214,553	---	\$298,879
Sculpin	---	---	---	---	21,107	54,414	75,521
	---	---	---	---	\$6,936	\$14,626	\$21,562
Sea bass, giant	---	---	---	991	244,737	57,851	303,579
	---	---	---	\$104	\$38,645	\$9,100	\$47,849
Seabass, white	---	25,707	3,934	71,114	645,448	145,017	891,220
	---	\$5,936	\$1,324	\$20,587	\$177,176	\$33,832	\$241,855
Shark	290	152,588	45,344	85,686	257,108	124,351	665,367
	\$15	\$7,171	\$2,263	\$8,898	\$32,070	\$11,839	\$62,256
Sheephead, California	---	---	---	76	4,666	23,269	28,011
	---	---	---	\$4	\$357	\$1,929	\$2,290
Skate	3,828	113,437	96,464	2,334	782	---	216,825
	\$132	\$1,340	\$1,283	\$118	\$88	---	\$2,961
Smelt	230,068	51,149	33,181	450	43,608	---	358,456
	\$11,900	\$6,316	\$2,511	\$49	\$1,535	---	\$22,311
Smelt, whitebait	129,364	18,716	---	---	---	---	148,080
	\$8,810	\$1,897	---	---	---	---	\$10,707
Sole, Dover	7,533,838	2,030,622	82,355	134,917	---	---	9,781,732
	\$473,878	\$113,106	\$4,052	\$8,069	---	---	\$599,105

TABLE 16—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San* Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
LANDINGS—Continued							
Fish—Continued							
Sole, English-----	1,486,214	1,902,841	390,453	474,320	717	-----	4,254,545
	\$117,707	\$148,612	\$29,675	\$32,964	\$43	-----	\$329,001
Sole, petrale-----	1,845,001	922,376	233,611	316,836	124	-----	3,317,948
	\$214,389	\$119,171	\$29,763	\$37,069	\$13	-----	\$400,405
Sole, rex-----	621,789	514,644	105,555	323,684	-----	-----	1,565,672
	\$45,452	\$34,894	\$5,288	\$22,464	-----	-----	\$108,098
Sole, sand-----	37,725	244,442	260	48,781	-----	-----	331,208
	\$4,101	\$25,202	\$21	\$5,356	-----	-----	\$34,680
Sole, miscellaneous-----	539	322	23,901	4,927	702	13,024	43,415
	\$26	\$18	\$2,342	\$288	\$98	\$2,855	\$5,627
Splittail-----	-----	5,383	-----	-----	-----	-----	5,383
	-----	\$1,163	-----	-----	-----	-----	\$1,163
Sucker-----	-----	-----	-----	-----	5,947	-----	5,947
	-----	-----	-----	-----	\$297	-----	\$297
Swordfish-----	-----	-----	11,800	27,039	48,262	10,973	98,074
	-----	-----	\$6,334	\$16,237	\$29,343	\$6,556	\$58,470
Tuna, albacore-----	6,689,651	3,424,487	5,840,787	3,608,378	23,598,961	5,697,314	48,859,578
	\$916,481	\$474,634	\$803,108	\$510,947	\$3,756,954	\$854,597	\$7,316,721
Tuna, bluefin-----	-----	88,001	-----	12	26,278,802	3,986,594	30,353,409
	-----	\$9,900	-----	\$2	\$2,961,621	\$420,586	\$3,392,109
Tuna, skipjack-----	-----	212,048	-----	-----	71,619,272	24,788,624	96,619,944
	-----	\$21,332	-----	-----	\$7,720,558	\$2,632,552	\$10,374,442
Tuna, yellowfin-----	-----	1,397,638	-----	-----	83,129,361	25,056,267	109,583,166
	-----	\$185,314	-----	-----	\$11,014,640	\$3,329,978	\$14,529,932
Turbot-----	5,998	55,147	330	34,979	365	-----	96,819
	\$415	\$3,221	\$14	\$1,896	\$29	-----	\$5,575
Wahoo-----	-----	-----	-----	-----	20,227	1,673	21,900
	-----	-----	-----	-----	\$7,079	\$309	\$7,388
Whitefish, ocean-----	-----	-----	-----	16	846	2,392	3,254
	-----	-----	-----	\$1	\$67	\$146	\$214
Yellowtail, California-----	-----	-----	-----	882	53,372	15,472	69,726
	-----	-----	-----	\$96	\$5,466	\$1,391	\$6,953
Miscellaneous-----	105	81	1,610	509	1,923	28	4,256
	\$5	\$13	\$45	\$35	\$393	\$5	\$496
Miscellaneous (animal food)-----	19,327	1,942	83,360	929,332	-----	-----	1,033,961
	\$387	\$31	\$1,601	\$18,587	-----	-----	\$20,606
Crustacean:							
Crab, market-----	730,029	1,210,319	8,759	2,354	-----	-----	1,951,461
	\$242,369	\$441,525	\$3,670	\$935	-----	-----	\$688,499
Crab, rock-----	26,925	-----	1,081	100,416	107,899	4,290	240,611
	-----	-----	\$62	\$7,150	\$12,743	\$139	\$20,094
Lobster, spiny-----	-----	-----	-----	123,335	252,142	208,715	584,192
	-----	-----	-----	\$78,922	\$167,624	\$134,829	\$381,375
Prawn-----	-----	-----	8,445	-----	-----	-----	8,445
	-----	-----	\$5,868	-----	-----	-----	\$5,868
Shrimp, bay-----	-----	1,225	-----	-----	-----	-----	1,225
	-----	\$368	-----	-----	-----	-----	\$368
Shrimp, ocean-----	1,887,916	204,957	-----	190	-----	-----	2,093,063
	\$181,239	\$20,578	-----	\$38	-----	-----	\$201,855
Mollusk:							
Abalone-----	-----	84,242	1,863	2,802,728	1,239,038	216,008	4,343,879
	-----	\$14,987	\$413	\$432,680	\$158,813	\$18,841	\$625,734
Clam, Washington-----	3,879	-----	-----	-----	-----	-----	3,879
	\$600	-----	-----	-----	-----	-----	\$600
Octopus-----	8,510	50,848	13,168	1,833	255	-----	74,614
	\$392	\$2,166	\$1,434	\$112	\$54	-----	\$4,158
Oyster, eastern-----	-----	13,502	-----	-----	-----	-----	13,502
	-----	\$4,726	-----	-----	-----	-----	\$4,726
Oyster, giant Pacific-----	942,412	172,227	3,937	136,939	-----	-----	1,255,515
	\$169,634	\$31,001	\$709	\$24,649	-----	-----	\$225,993
Squid-----	-----	-----	6,754,463	674,215	4,131,866	310	11,560,854
	-----	-----	\$176,966	\$8,024	\$55,367	\$9	\$240,366
Miscellaneous mollusk-----	-----	370	292	167	40	-----	869
	-----	\$870	\$69	\$8	\$2	-----	\$949
Total pounds-----	31,037,042	21,519,372	24,109,000	22,963,048	348,733,213	61,356,718	509,718,393
Total value-----	\$4,360,786	\$3,926,109	\$1,735,031	\$1,702,298	\$29,411,165	\$7,617,067	\$48,752,456

TABLE 16—Continued

Value of Landings and Shipments of Commercial Fish Into California by Area, 1963

Species	Eureka	San* Francisco	Monterey	Santa Barbara	Los Angeles	San Diego	Total
SHIPMENTS:†							
Fish:							
Halibut, California.....	----	----	----	----	8,357	103	8,460
					\$2,002	\$23	\$2,025
Rockfish.....	----	----	----	----	11,146	----	11,146
					\$1,406	----	\$1,406
Sablefish.....	----	----	----	----	188,559	----	188,559
					\$38,013	----	\$38,013
Salmon.....	----	----	----	----	176,728	----	176,728
					\$149,949	----	\$149,949
Shad.....	----	2,765	----	----	----	----	2,765
		\$1,521	----	----	----	----	\$1,521
Shark.....	----	----	----	----	2,488	----	2,488
					\$349	----	\$349
Sturgeon.....	----	----	----	----	1,063	----	1,063
					\$744	----	\$744
Tuna, albacore.....	----	1,572,256	----	----	15,307,342	65,627	16,945,225
		\$484,255	----	----	\$2,899,211	\$9,516	\$3,392,982
Tuna, bigeye.....	----	674,310	----	----	59,675	----	733,985
		\$82,266	----	----	\$5,072	----	\$87,338
Tuna, bluefin.....	----	51,990	----	----	2,296,402	----	2,348,392
		\$9,748	----	----	\$322,415	----	\$332,163
Tuna, skipjack.....	----	217,830	----	----	6,199,098	3,247,961	9,664,889
		\$35,158	----	----	\$643,486	\$357,601	\$1,036,225
Tuna, yellowfin.....	----	15,838,188	----	----	34,910,056	1,994,812	52,743,056
		\$3,097,950	----	----	\$5,643,717	\$289,248	\$8,930,915
Miscellaneous.....	----	120,340	----	----	224,378	----	344,718
		\$12,539	----	----	\$78,396	----	\$90,935
Mollusks:							
Abalone.....	----	----	----	----	10,000	----	10,000
					\$1,200	----	\$1,200
Total pounds.....	----	18,477,679	----	----	59,394,292	5,308,503	83,180,474
Total value.....	----	\$3,723,437	----	----	\$9,685,940	\$656,388	\$14,065,765
GRAND TOTAL POUNDS	31,037,042	39,997,051	24,109,000	22,963,048	408,127,505	66,665,221	592,898,867
GRAND TOTAL VALUE	\$4,360,786	\$7,649,546	\$1,735,031	\$1,702,298	\$39,097,105	\$8,273,455	\$62,818,221

* Includes Sacramento area landings.

† For origin of shipments refer to Table 7.

TABLE 17
Value of Landings by Port, Eureka Area, 1963

	Value	Pounds
EUREKA AREA TOTALS	\$4,360,786	31,037,042
Eureka		
Salmon.....	\$669,580	1,487,323
Albacore.....	589,569	4,303,424
Dover sole.....	212,498	3,378,354
Giant Pacific oyster.....	169,634	942,412
Market crab.....	105,352	317,326
Ocean shrimp.....	97,375	1,014,325
Petrale sole.....	62,029	533,809
Rockfish.....	44,312	910,841
English sole.....	31,861	402,285
Sablefish.....	20,286	231,842
Rex sole.....	15,726	215,134
Lingcod.....	8,359	108,844
Perch.....	5,282	38,893
All other species.....	11,048	184,862
Totals.....	\$2,042,911	14,069,674
Fort Bragg		
Salmon.....	\$558,416	1,235,181
Albacore.....	274,717	2,005,236
Market crab.....	65,856	198,362
Dover sole.....	65,818	1,046,384
Petrale sole.....	41,902	360,603
Rockfish.....	37,934	762,689
English sole.....	22,304	281,620
Sablefish.....	15,799	180,565
Lingcod.....	12,744	165,943
Rex sole.....	9,273	126,860
All other species.....	10,782	158,733
Totals.....	\$1,115,545	6,522,176
Crescent City		
Salmon.....	\$315,437	779,170
Ocean shrimp.....	71,305	742,761
Albacore.....	46,847	341,950
Market crab.....	30,854	92,934
English sole.....	22,190	280,183
Rockfish.....	20,525	407,080
Petrale sole.....	16,519	142,161
Dover sole.....	14,312	227,537
Lingcod.....	13,875	180,667
All other species.....	17,062	228,844
Totals.....	\$568,926	3,423,287
Fields Landing		
Dover sole.....	\$181,250	2,881,563
Petrale sole.....	93,939	808,428
Rockfish.....	64,542	1,289,831
English sole.....	41,352	522,126
Sablefish.....	19,206	219,501
Rex sole.....	16,890	231,057
Lingcod.....	14,789	192,565
Ocean shrimp.....	9,017	93,930
Market crab.....	7,886	23,753
Smelt.....	6,733	129,462
Albacore.....	5,074	37,038
All other species.....	17,993	205,310
Totals.....	\$478,671	6,634,564
Albion		
Salmon.....	\$63,478	136,359
All other species.....	186	3,446
Totals.....	\$63,664	139,805

TABLE 17—Continued
Value of Landings by Port, Eureka Area, 1963

	Value	Pounds
Trinidad		
Market crab.....	\$32,421	97,654
Salmon.....	18,074	46,365
All other species.....	304	2,525
Totals.....	\$50,799	146,544
Point Arena		
Salmon.....	\$39,393	85,321
All other species.....	23	332
Totals.....	\$39,416	85,653
All other ports		
All species.....	\$854	15,339
Totals.....	\$854	15,339

TABLE 18
Value of Landings and Shipments by Port, San Francisco Area, 1963 *

	Value	Pounds
SAN FRANCISCO AREA TOTALS	\$7,649,546	39,997,051
San Francisco		
Yellowfin tuna.....	\$3,283,264	17,235,726
Albacore.....	555,029	2,082,893
Salmon.....	368,110	656,760
Market crab.....	274,886	753,526
English sole.....	106,358	1,361,822
Rockfish.....	99,708	1,935,464
Dover sole.....	98,864	1,774,935
Petrale sole.....	83,966	649,894
Bigeye tuna.....	82,266	674,310
Skipjack.....	56,490	429,878
Rex sole.....	26,327	388,299
Sabl-fish.....	24,942	729,308
Sand sole.....	22,438	217,632
California halibut.....	21,625	97,851
Bluefin tuna.....	19,648	139,991
Sanddab.....	18,271	270,680
Lingcod.....	14,217	185,600
White seabass.....	8,890	25,574
Flounder.....	7,316	130,638
All other species.....	13,607	375,276
Totals.....	\$5,186,222	30,116,057
Bodega Bay		
Salmon.....	\$688,018	1,227,584
Market crab.....	70,739	193,912
Albacore.....	34,437	248,461
English sole.....	27,503	352,149
Petrale sole.....	26,477	204,927
Ocean shrimp.....	19,581	195,027
Dover sole.....	8,829	158,504
Rockfish.....	7,474	132,491
Lingcod.....	5,183	67,669
Smelt.....	5,128	36,636
All other species.....	15,353	270,574
Totals.....	\$908,722	3,087,934
Sausalito		
Salmon.....	\$377,544	675,940
Albacore.....	124,830	900,649
Market crab.....	13,618	37,329
All other species.....	3,463	35,463
Totals.....	\$519,455	1,649,381
Oakland		
Albacore.....	\$243,555	1,757,249
Salmon.....	118,819	211,987
Market crab.....	16,410	44,984
All other species.....	12	195
Totals.....	\$378,796	2,014,415
Point Reyes		
Salmon.....	\$200,901	358,431
Giant Pacific oyster.....	24,937	138,539
Market crab.....	23,414	64,182
English sole.....	14,751	188,870
Rockfish.....	14,167	283,612
Petrale sole.....	8,728	67,555
Dover sole.....	5,413	97,183
All other species.....	22,665	347,450
Totals.....	\$314,976	1,545,822

TABLE 18—Continued
Value of Landings and Shipments by Port, San Francisco Area, 1963 *

	Value	Pounds
Princeton		
Salmon.....	\$199,778	356,429
Market crab.....	42,268	115,866
Abalone.....	14,987	84,242
All other species.....	1,847	18,818
Totals.....	\$258,880	575,355
Clear Lake		
Hardhead.....	\$27,820	139,102
Carp.....	6,017	127,750
Totals.....	\$33,837	266,852
Tomaes Bay		
Giant Pacific oyster.....	\$6,064	33,688
All other species.....	16,618	437,555
Totals.....	\$22,682	471,243
Richmond		
All species.....	\$14,117	134,841
Totals.....	\$14,117	134,841
Turlock		
All species.....	\$6,609	93,423
Totals.....	\$6,609	93,423
All other ports		
All species.....	\$5,250	41,728
Totals.....	\$5,250	41,728

* Includes Sacramento area landings.

TABLE 19
Value of Landings by Port, Monterey Area, 1963

	Value	Pounds
MONTEREY AREA TOTALS	\$1,735,031	24,109,000
Moss Landing		
Albacore	\$456,807	3,322,232
Salmon	223,006	394,669
Sardine	49,836	1,046,965
Anchovy	44,278	3,012,110
Jack mackerel	25,559	1,096,960
Squid	16,966	647,575
Pacific herring	12,267	168,740
All other species	20,772	216,842
Totals	\$849,491	9,906,093
Monterey		
Albacore	\$344,067	2,502,306
Squid	159,936	6,104,443
Rockfish	130,644	2,429,358
Salmon	42,226	74,567
Petrale sole	27,033	212,188
English sole	26,045	342,698
Sardine	13,781	289,511
Jack mackerel	12,883	552,159
Stablefish	8,580	211,320
Sanddab	6,070	115,620
Prawn	5,868	8,445
Rex sole	5,003	99,870
All other species	38,476	806,908
Totals	\$820,612	13,749,393
Santa Cruz		
Salmon	\$24,418	43,118
California halibut	10,554	44,760
Pacific herring	5,490	75,512
All other species	24,466	290,124
Totals	\$64,928	453,514

TABLE 20
Value of Landings by Port, Santa Barbara Area, 1963

	Value	Pounds
SANTA BARBARA AREA TOTALS	\$1,702,298	22,963,048
Morro Bay		
Albacore.....	\$475,765	3,359,921
Abalone.....	171,334	1,087,653
Rockfish.....	81,829	1,438,139
Giant Pacific oyster.....	24,649	136,939
Sardine.....	16,772	326,945
Petrale sole.....	12,864	109,950
Salmon.....	12,564	20,078
Jack mackerel.....	9,647	527,160
Rex sole.....	6,914	99,628
Perch.....	5,557	24,908
All other species.....	21,484	411,725
Totals.....	\$839,379	7,543,096
Santa Barbara		
Abalone.....	\$196,954	1,287,341
Spiny lobster.....	62,700	97,984
California halibut.....	40,116	179,893
Rockfish.....	31,173	605,156
English sole.....	26,296	378,366
Swordfish.....	16,237	27,039
Petrale sole.....	13,256	113,301
Miscellaneous (animal food).....	9,812	490,582
Rock crab.....	6,394	89,804
White seabass.....	5,791	20,005
California barracuda.....	5,720	36,642
All other species.....	12,442	153,630
Totals.....	\$426,891	3,479,743
Port Hueneme		
Jack mackerel.....	\$118,843	6,494,140
Abalone.....	47,174	318,484
Pacific mackerel.....	43,717	2,428,730
California halibut.....	9,930	44,529
Squid.....	8,021	674,000
All other species.....	14,883	156,786
Totals.....	\$242,568	10,116,669
Avila		
Albacore.....	\$33,563	237,029
Salmon.....	31,127	52,510
Rockfish.....	27,120	508,879
Abalone.....	15,295	97,050
Rex sole.....	11,610	167,290
Petrale sole.....	10,949	93,585
White seabass.....	9,654	33,347
California halibut.....	9,276	41,598
Sand sole.....	5,229	47,626
Miscellaneous (animal food).....	5,047	252,350
All other species.....	14,986	227,028
Totals.....	\$173,856	1,758,292
Ventura		
Spiny lobster.....	\$11,999	18,752
All other species.....	2,707	16,933
Totals.....	\$14,706	35,685
All other ports		
All species.....	\$4,898	29,563
Totals.....	\$4,898	29,563

TABLE 21
Value of Landings and Shipments by Port, Los Angeles Area, 1963

	Value	Pounds
LOS ANGELES AREA TOTALS	\$39,097,105	408,127,505
Terminal Island		
Yellowfin tuna.....	\$16,518,603	117,739,384
Skipjack.....	8,362,188	77,801,345
Albacore.....	6,611,934	38,628,468
Bluefin tuna.....	3,188,693	27,729,219
Jack mackerel.....	1,553,517	73,977,013
Pacific mackerel.....	680,773	31,517,285
Sardine.....	115,802	2,909,592
Pacific bonito.....	76,727	2,769,917
Squid.....	42,533	3,174,136
Bigeye tuna.....	5,072	59,675
All other species.....	111	840
Totals.....	\$37,155,953	376,306,874
San Pedro		
White seabass.....	\$165,588	603,234
Sardine.....	98,588	2,477,088
Bluefin tuna.....	95,343	845,985
Spiny lobster.....	80,148	120,559
Rockfish.....	66,129	549,889
Jack mackerel.....	55,532	2,644,975
Pacific mackerel.....	52,799	2,444,394
California barracuda.....	48,448	297,407
California halibut.....	43,770	184,995
Yellowfin tuna.....	39,466	297,858
Giant sea bass.....	38,514	243,911
Grouper.....	38,353	179,387
White croaker.....	27,168	469,843
Abalone.....	26,878	208,819
Pacific bonito.....	25,151	907,967
Albacore.....	23,613	148,320
Swordfish.....	20,420	33,586
Anchovy.....	18,836	905,560
Shark.....	14,387	118,509
Squid.....	12,809	955,860
Pacific pompano.....	8,542	31,908
All other species.....	25,340	218,929
Totals.....	\$1,025,822	14,886,983
Newport Beach		
Abalone.....	\$131,324	1,025,288
Jack mackerel.....	64,376	3,065,500
Pacific mackerel.....	23,882	1,105,643
Spiny lobster.....	22,816	34,320
California halibut.....	18,621	78,672
Shark.....	16,446	130,597
Albacore.....	9,336	58,643
Wahoo.....	7,079	20,227
Swordfish.....	6,153	10,120
All other species.....	8,939	205,677
Totals.....	\$308,972	5,734,687
Los Angeles		
Salmon.....	\$149,949	175,728
Sablefish.....	38,013	188,559
All other species.....	81,110	253,867
Totals.....	\$269,072	618,154
Wilmington		
Jack mackerel.....	\$148,686	7,080,269
Pacific mackerel.....	58,706	2,717,851
Pacific bonito.....	5,877	212,160
All other species.....	303	4,710
Totals.....	\$213,572	10,014,990

TABLE 21—Continued
Value of Landings and Shipments by Port, Los Angeles Area, 1963

	Value	Pounds
Santa Monica		
Spiny lobster.....	\$21,742	32,705
White seabass.....	7,993	29,119
All other species.....	13,383	87,253
Totals.....	\$43,118	149,077
Long Beach		
Spiny lobster.....	\$19,384	29,158
Albacore.....	10,710	67,277
All other species.....	12,358	164,441
Totals.....	\$42,452	260,876
San Clemente		
Spiny lobster.....	\$20,558	30,924
Totals.....	\$20,558	30,924
Redondo Beach		
Rock crab.....	\$7,497	63,477
All other species.....	3,353	33,054
Totals.....	\$10,850	96,531
All Other Ports		
All species.....	\$6,736	28,409
Totals.....	\$6,736	28,409

TABLE 22
Value of Landings and Shipments by Port, San Diego Area, 1963

	Value	Pounds
SAN DIEGO AREA TOTALS -----	\$8,273,455	66,665,221
San Diego		
Yellowfin tuna-----	\$3,619,226	27,051,079
Skipjack-----	2,990,153	28,036,585
Albacore-----	864,113	5,762,941
Bluefin tuna-----	420,586	3,986,594
Spiny lobster-----	106,735	165,224
California halibut-----	72,312	368,562
Rockfish-----	38,500	316,711
White seabass-----	33,739	144,617
Abalone-----	18,779	215,408
Sculpin-----	14,617	54,379
Grouper-----	12,561	53,932
Shark-----	11,725	123,217
Giant sea bass-----	9,085	57,756
Swordfish-----	6,556	10,973
All other species-----	19,001	212,783
Totals-----	\$8,237,688	66,560,761
Cardiff		
Spiny lobster-----	\$11,642	18,022
All other species-----	2,408	19,324
Totals-----	\$14,050	37,346
La Jolla		
Spiny lobster-----	\$9,801	15,172
All other species-----	764	6,889
Totals-----	\$10,565	22,061
Oceanside		
Spiny lobster-----	\$5,466	8,462
All other species-----	4,465	34,585
Totals-----	\$9,931	43,047
All other ports		
All species-----	\$1,221	2,006
Totals-----	\$1,221	2,006

TABLE 23
Statewide Commercial Partyboat Catch by Species
(Not including anchored barges)
1954-1963 *

Species	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963
Barracuda, California	282,552	154,062	87,603	577,164	782,723	1,195,585	755,408	391,884	335,507	483,699
Bass, kelp and sand	876,687	497,343	470,362	609,071	653,671	1,195,585	1,493,658	613,604	789,149	1,219,344
Bouto, Pacific	70,078	22,409	61,404	258,555	422,568	776,386	1,193,919	849,426	798,725	775,719
Capezon	13,132	12,366	18,195	14,479	9,909	5,329	2,516	2,639	4,538	9,728
Halibut, California	59,674	35,802	21,661	10,795	16,192	25,365	48,310	108,011	118,966	125,669
Lingcod	22,940	29,113	37,649	38,012	39,801	31,206	28,232	23,466	25,399	27,513
Mackerel, jack	19,407	39,473	23,493	6,878	27,867	11,820	8,587	28,891	9,029	9,342
Mackerel, Pacific	315,037	151,018	121,136	151,960	136,607	88,982	79,370	113,988	116,738	145,580
Rockfish	1,149,367	1,737,707	2,036,708	1,395,151	1,561,132	1,177,979	1,015,673	898,641	986,438	962,659
Salmon	119,911	128,978	114,505	44,701	52,676	55,945	37,941	42,965	87,612	72,457
Sculpin	33,462	28,613	36,558	13,473	13,743	11,477	15,111	26,672	33,314	53,896
Seabass, white	41,588	30,103	19,755	19,030	34,039	10,593	15,697	14,082	14,564	19,800
Sheephead, California	21,499	14,102	14,789	15,105	18,120	17,146	11,541	15,210	13,488	18,443
Tuna, albacore	20,098	78,688	65,814	41,540	6,482	39	76,075	184,891	229,314	158,372
Tuna, bluefin	966	8,179	34,187	6,428	884	1,330	97	2,268	2,453	737
Whitefish, ocean	9,952	9,508	7,651	4,389	6,143	5,608	5,850	6,647	6,157	6,231
Yellowtail, California	40,872	36,468	29,198	242,686	123,384	457,350	254,969	42,367	21,826	48,705
All others	177,335	99,051	62,027	80,148	44,939	28,039	56,132	87,981	92,776	142,630
Total number of fish	3,274,537	3,113,883	3,262,995	3,493,585	3,951,880	4,328,575	4,090,034	3,453,633	3,655,993	4,278,502
Number of angler days†	532,190	496,286	523,063	536,175	515,152	557,154	516,255	495,805	595,866	643,155
Number of anglers	---	---	---	---	---	---	---	---	---	---

* See Fish Bulletin #121 for historical records 1938-1961.

† Not available after 1961.

TABLE 24
Recorded Catch of Live Bait for Saltwater Sportfishing, 1963

Species	Thousands of pounds*
Anchovy.....	8,884
Herring, Pacific.....	46
Mackerel, jack.....	15
Sardine, adult.....	38
Sardine, juvenile.....	3
Squid.....	5
Miscellaneous†.....	82
Total pounds.....	9,073

* Using a conversion factor of 12.5 pounds per live bait scoop, weights are estimated from voluntary records submitted by 21 boats. The weight of a scoop of live bait varies between 10 and 15 pounds. The records represent almost all the live bait landings, however, they should be regarded as minimal.

† Consists primarily of queenfish and white croaker.

